

The Journal of **ELECTRICAL WORKERS** AND OPERATORS

RECORDING · THE · ELECTRICAL · ERA

VOL. XXXI

WASHINGTON, D. C., JUNE, 1932

NO. 6

UNION
Destroyers
EXPOSED

Life Insurance As An Investment

What a former President of the United States says:

"Life insurance is as safe as any financial institution can be."—Calvin Coolidge.

What a life insurance expert says:

"Consider life insurance as an installment plan of investment—absolutely safe; non-fluctuating in its dollar value; freeing the investor from all the hazards of individual selection; giving the finest spread of investment risk known to man; freeing him from all managerial cares; more suitable for quick borrowing than any other investment plan; purchasable in convenient denominations; with a speculative element (death in early years of policy) that always works with the investor and never against him."—Dr. S. S. Huebner.

What the Better Business Bureau says with regard to an inventory of an estate estimated at \$83,000:

"On liquidation, there was just \$5,000 left. The insurance policy was the only thing of value. It was worth 100 cents on the dollar. The stocks were worthless. Over \$80,000 had been put into highly speculative promotions without a cent ever coming back. Insurance was the only 'investment' in the whole estate."—Better Business Bureau of Indianapolis, Indiana.

What Union Cooperative says:

On December 31, 1931, the date for reporting to the Insurance Departments of the different states, we had

LIFE INSURANCE IN FORCE

\$108,130,937

ADMITTED ASSETS

\$2,262,830

PAID TO POLICY HOLDERS OR NAMED
BENEFICIARIES IN 1931

\$806,967.76

We have life insurance contracts appropriate for the needs of every member of your family,—

Straight Life Insurance (protection for your beneficiary and a "clean-up fund" for your unpaid bills)

Endowment Policies (a savings fund for yourself—or protection for your beneficiary)

Family Income Plan (providing an income for your family)

Annuities (providing an income for you)

Children's Policies (an educational fund, or regular insurance protection)

Group Life Insurance (a low-cost death benefit for the members of your organization)

INVESTIGATE BEFORE YOU INVEST
BUY YOUR LIFE INSURANCE INVESTMENT
FROM THE

UNION COOPERATIVE INSURANCE ASSOCIATION

Home Office: 1200 15th St. N. W.

Washington, D. C.

OFFICIAL ORGAN OF THE INTERNATIONAL ELECTRICAL WORKERS AND OPERATORS

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G. M. BUGNIAZET, Editor, 1200 15th Street N. W., Washington, D. C.

This Journal will not be held responsible for views expressed by correspondents.

The first of each month is the closing date; all copy must be in our hand on or before.

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Magazine Chat

To Our Most Willing and
Co-operative Scribes:

Yes, you have a grievance this month. Quite unexpectedly, but pushed on by what appeared to be a necessity and the need of the organization, we have pushed up the publication date of the June Journal approximately 10 days.

There was not enough time to notify our correspondents. As a result, most of the letters which arrive at the apex of the month had not arrived when these forms were closed and the magazine sent to press. This number has been shortened to 48 pages as a result, and our membership is without the timely, illuminating and important comments and reports of our press secretaries.

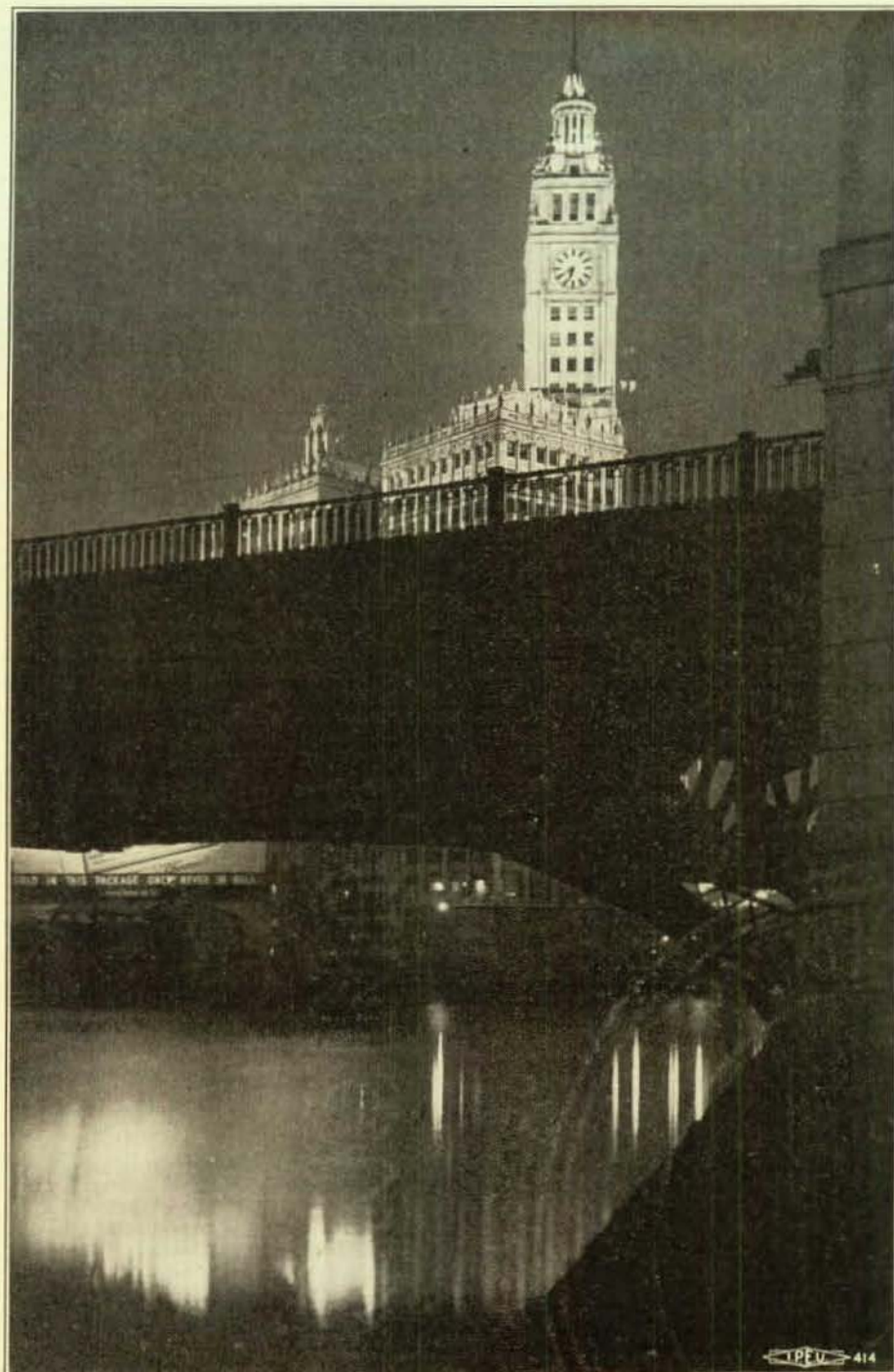
We hope to be forgiven, and we promise in July to make amends, we hope, by handling the overflow in that number caused by the early closing this month. We believe that our readers will come to the July correspondence with new zest, having been forced to wait much longer for the familiar faces in the correspondence columns.

Like all businesses, magazines have suffered shrinkage, and often death, because of the prolonged depression. We note with some surprise and regret the passing from the contemporary scene of "General Building Contractor," a publication of the large organization, F. W. Dodge Corporation. This was a magazine devoted to general problems in the building industry. Presumably it should have behind it resources of considerable strength.

It's going makes one think how fortunate the Electrical Workers organization has been in being able to keep intact its own official publication during this terrible business stringency. As we have often said before—a publication is to a union like a vital nervous system. Without it, the organism would soon be nothing more than a sad collection of isolated parts.

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F. Chadde



CRAFT

*Cities are built of muscle,
Of sweat and brains and
blood.
Ye towers, be proud of your
birthright,
Ye are founded on lives,
not mud.*

*Cities are shaped by heart-
beats
Of men who sing as they
toil.
The hand of the Great
Mechanic
Is seen in the plan of it
all.*

*Craft, craft is the magic
power
That works in tower and
span,
Cities are only mirrors
Of the Great Mechanic's
plan.*

JOHN GRAY MULLIN.





THE JOURNAL OF ELECTRICAL WORKERS & OPERATORS

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Vol. XXXI

WASHINGTON, D. C., JUNE, 1932

No. 6

Documents Reveal Nation-Wide Spy Attacks

THE International Brotherhood of Electrical Workers offers in evidence of a nation-wide spy plot against the union nine unique and startling exhibits.

These documents are in the nature of instructions to and letters to operators in the field from the headquarters of "The American Financiers,—Investigation and Protective Service." They deal mainly with attempts to break up the New York local union of the International Brotherhood of Electrical Workers. But they indicate that operators are on work in

New York City,
Pittsburgh,
Baltimore,
Buffalo,
Cincinnati,
Dayton,
Cleveland.

These documents bear the signature of one G. Edgar Applegate, who, it is indicated, carries an alias of George E. Anderson.

The letters and papers represent the best exhibits ever published in the long and dishonorable history of industrial espionage. They are replete with crafty, sneering instructions to operators, contain secret code messages, cryptic remarks, and exaggerated promises of success.

Full analyses of the documents, and their relation to the organization is made on page 285 by G. M. Bugniazet, International Secretary.

In late years public opinion has been severely arrayed against systems of industrial spies. Industrialists who employ them do it with the utmost back-alley secrecy. They hide behind dummy after dummy and make and remake the titles of the firms performing the dirty service. Activities of the spy bureaus usually increase during March, April and May, when wage negotiations are going forward. They increase during depressions and open shop drives.

Letters of spy organization anticipate every developing move against local unions. Whole sinister plot mercilessly laid bare by perpetrators themselves. New chapter in long anti-social history of dirty spy business. Documents destined to become historic evidence.

They are undoubtedly paid for by open shop and anti-union employers, those who support such pseudo-respectable organizations as the League for Industrial Rights.

The extent to which public opinion has been aroused by the use of spies is indicated by the following resolution introduced into the U. S. Senate by Senator Wheeler, several years ago:

"Whereas various court proceedings and published investigations have tended to show that a large number of private detective agencies are obtaining large sums of money from business concerns and organizations by falsely representing movements among their employees by joining labor organizations and advocating revolutionary methods for the purpose of discrediting said labor organizations, and by manufacturing scares concerning radical propaganda and alleged plans for the use of violence in industrial conflict; and

"Whereas these agencies and other interests connected with them, are detrimental to the peaceful relationship between employers and employees, setting up a system of espionage in industry, thriving on the unrest and fear they create, and spreading false rumors and

scares and often bringing about strikes in order to maintain their alleged services; therefore be it

"Resolved, That the Committee on Education and Labor be, and hereby is, empowered to conduct an inquiry into the extent of this system of industrial espionage in all its ramifications and to report to the Senate what legislation in the committee's judgment, is desirable to correct such practices as they may find inimical to the public welfare."

Sidney Howard, dramatist, in his book on "The Labor Spy," says:

"The labor spy occupies a position of immense strength because there is absolutely no power on earth which can hold him to the truth.

"The spy's job is to report trouble. When he has no more trouble to report his job is ended. The very nature of his job requires him to do one of two things. He may falsify his reports, or create, through his own influence upon the workers, a basis upon which to report the truth.

"The (spy) propagandist becomes a politician, is elected to office, offers bribes, sways policy, compromises, blackmails, and betrays. From the floor, he heckles speakers, asks embarrassing questions, advocates violence, preaches communist theory to conservatives, frightens radicals with the dangers of their dogma, and splits either into factions, ready with bared teeth and thirsty for blood."

The spy must thrive upon crookedness. He must deceive his employer, and he must play a low, degraded, reptilian role in the union. No decent person accepts such a task. Only the lowest, least reliable, and most dishonorable men undertake it.

FACSIMILE NO. 1

THE AMERICAN FINANCIERS**Investigation and Protective Bureau**

(INDUSTRIAL DIVISION)

INSTRUCTIONS

Re. L. U. 3.

- #1 - Operative #6 shall have complete charge of all operations in connection with L. U. 3. His orders must be explicitly obeyed.
- #2 - You are to report to him daily by mail, using date symbols in combination with your last order number.
- #3 - You are not to meet or recognize each other unless ordered to do so.
- #4 - Let your deportment be above reproach so that your contact men will place confidence in your every word.
- #5 - Personal names are never to be used in reports or any of our correspondence. Use their title or a suitable synonym so that we will know who is meant.
- #6 - Have no dealings with Park Ave. either direct or indirect. I have that situation well taken care of and their aim is our aim.
- #7 - On the leader in Washington and the ex-convict, give as much and as strong as printed words will stand. Where possible, call him "Howell" and when you get the word to "Let go" it is then to be Howell He's Beaten.
- #8 - The ex-convict holds his strength through the older members. It is possible for him to fix up all insurance matters. Show that he does.
- #9 - The Prexy might not be adverse to taking a trip soon with a lot of dough and some yellow pine. Things are hot for him right now. Vague but play it.
- #10 - King Jake Wise Guy is to be worked on slowly at first. Insinuate that he is playing into the hands of the gentiles to the detriment of the Kosher boys. Have him show the members what he does with all the funds turned over to his committee. He might then buy a Railroad Ticket. One way.

FACSIMILE NO. 1 (Continued)

THE AMERICAN FINANCIERS

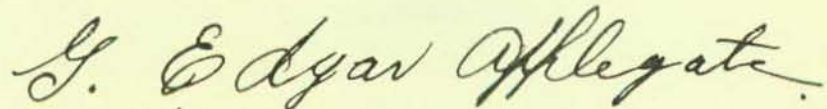
Investigation and Protective Bureau

(INDUSTRIAL DIVISION)

- 2 -

- #11 - Use the Kosher boys only when you are sorely pressed for their assistance. Give them cash only for their endeavors, but be vague in your contracts with them as they will not be as easy to eliminate as the Papist's will be in the new organization, we have for the members when the present one is no more.
- #12 - The Business Admiral should be forced to eliminate 39 of his 40 Minute Men. This would facilitate our activities in our field work. Use tact with this department as they are a shrewd bunch. Study this carefully and don't Mislays or lose it. Destroy it.

Yours truly,



Why the General Attack on the I. B. E. W.?

AN ANALYSIS

By G. M. BUGNIAZET, International Secretary

WE believe the answer to the foregoing to be that we are too progressive, and we are deeply interested in building up our industry without the usual strife. Our enemies are trying to make co-operation with our employers for the benefit of the public and the industry a conspiracy.

Here are a few facts we have uncovered, and we will leave to our members the answer to the pertinent question that stands at the head of these remarks.

In ST. LOUIS, MO., one John J. O'Mara endeavored to start an Electrical Contractors' Association,

and published a trade magazine, which was used in an attempt to wreck our Local Union No. 1 of that city; in that sheet a general attack was made on the Brotherhood. In the last issue of the ELECTRICAL WORKERS JOURNAL we have published O'Mara's record, including his jail experiences. Through the influence of Mr. O'Mara, a dual local was started in St. Louis, with F. A. Michel, a former member of Local Union No. 1141, of Oklahoma City, Okla., as president.

ERIE, PA.: Mr. O'Mara went to Erie and tried to get the electrical contractors there to oppose our

(Turn to next page)

AN ANALYSIS, By G. M. Bugniazet

local union. A few followed his advice, and some members, who had been disciplined by our local unions, formed a dual local. There were those, too, who tried as always to strengthen this outlaw movement by using the daily papers against us.

PITTSBURGH, PA.: In this city Mr. O'Mara repeated the effort made in Erie, Pa., and we are advised, received funds to pay for his last publication from persons in this city.

CLEVELAND, OHIO: In the April, 1932, minutes of the Cleveland Building Trades Association, they wrote up Mr. O'Mara's story and stated that hundreds of organizers were working on our organization and our employers.

NEW YORK, N. Y.: Fifteen members who had been disciplined by Local Union No. 3, applied to

the court, through counsel, for reinstatement in the local union, as well as for an injunction to restrain the International from interfering with them or the local union, and made other requests and allegations. The court granted their reinstatement pending trial. Then, prior to trial, they filed with the court further application for the right to take depositions of local union officers, which the court granted, and for which it appointed a referee.

Had their allegations been true they could have proceeded to trial, but not having the facts they were obliged to try to build up their case through an effort to obtain evidence by deposition, in order to be able to try the case and at the same time poison the public mind against the organization, if possible, through newspaper publicity. (Since the above action, another suspended member has been made a party to the action.)

(Turn to page 288)

FACSIMILE NO. 2

THE AMERICAN FINANCIERS

Investigation and Protective Bureau

(INDUSTRIAL DIVISION)

14 - 24

Re. L. U. 3

Pittsburgh

Dear Bartley:

After receiving your report, I conferred with the clients and they seem to think that contacts #4-7-and 9 would be the most suitable to their purpose right now. However, the others must be catered to and humored for the influences that they have in the social and religious organizations that they belong to.

If you can in some way get others with a little more intelligence than the above contacts pocess, by all means do it. It will have a better effect on the rank and file.

Most cordially,

G. Edgar Afflegate.

P. S. Helen was asking for you today.

FACSIMILE NO. 3

THE AMERICAN FINANCIERS

Investigation and Protective Bureau

(INDUSTRIAL DIVISION)

Cincinnati

17 - 26

Re. L. U. 3

Dear Bartley:

Funds have been sent to the uptown branch. They will arrive by Friday. Let me know if they are not there.

I think it was a wise move on your part to suggest having an office in that neighborhood. But do not make it too elaborate as they are not used to nice things and they will become suspicious at too great a display "Pigs is Pigs". You know.

You should slacken up on the other grafters now and concentrate most of your energies on L. U. 3. That is the hardest nut of the lot to crack.

Use the more sedate publications for most of your press work as we are not in a position right now to show pictures. Perhaps later you may be able to get pictures of some stormy session. Keep this in mind.

I might say that the rest of our boys around the country are not making as good a headway as your fellows are. But I feel certain that if you can crack your nut we shall be successful at the other places in due time.

You have a formidable fort to conquer but remember if that one falls, you will have a sinecure at the others.

Yours for success,

G. Edgar Applegate.

P. S. Cheer up. You will win.

FACSIMILE NO. 4

THE AMERICAN FINANCIERS

Investigation and Protective Bureau

(INDUSTRIAL DIVISION)

412-30

Re. L. U. 3

Baltimore

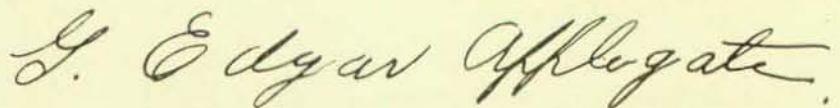
Dear Bartley:

I am sending to you, under separate cover, at the Hotel 26 names of men to be used at all future meetings.

They are to be used independently of the other contact men, their job is to be, to suggest thoughts to the other members and to start and participate in any demonstrations favorable to our side.

See that they are well scattered throughout the Hall. Pay them what you think they deserve.

Cordially,



P. S. I would like to go to the mountains this summer. What say you?

AN ANALYSIS, By G. M. Bugniazet

Here is a peculiar circumstance—the total income of the 16 men in the above suit, from working at the trade, August 17, 1931, to date, has been \$5,974.93. Six of them have earned nothing at the trade—having only had the relief paid them by Local Union No. 3; so that the other 10, in eight months, have received the above amount, in addition, of course, to the relief they received from Local Union No. 3 when not working.

Where, then, are they getting the money to pay the two lawyers who, usually get big fees, whom they have employed to represent them? And for the cost of taking depositions of the officers of Local Union No. 3, before the referee appointed by the court? The referee receives \$30 an hour; the stenographer who reports the hearings gets \$1 a page; and all our members know how long it will take to examine and cross-examine 25 or more persons. Then when this is over, there still remains the trial to pay for. And who is paying for the

FACSIMILE NO. 5

THE AMERICAN FINANCIERS

Investigation and Protective Bureau

(INDUSTRIAL DIVISION)

St. Louis

1221-18

Re. L. U. 3

Dear Bartley:

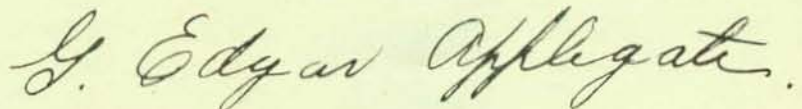
Operative #14 will join you in a few days. He has done splendid work here and I have sent him to Pittsburgh to clean up a few loose ends there before we start the barrage.

He has slept in "Car Barns" in his time and knows how to deal effectively with the most skeptical.

You might prepare now to hold a meeting under a Committee named. When the time is ripe. At this meeting, see to it that names and addresses are secured of those attending it. Then get a copy of them to me so that I may turn it over to our clients for their personal use.

Get all the press notices you can of this meeting. Before and after. In your attacks, contest the legality of the present crowd holding office, try to have an immediate election. Also a receiver being appointed would help our clients immensely. This has all been outlined to you on your instruction sheets and is here repeated merely to remind you of its vast importance. Use any means or tactics that you think best so long as they bring the desired results to our clients.

Cordially,



P. S. Meet me at the Mt. Royale next Tuesday.

AN ANALYSIS, By G. M. Bugniazet

circular letters sent out each week to the members of Local Union No. 3, and to practically all Brotherhood locals, politicians, newspapers and magazines? Some 10,000 of each issue are sent out, signed "New Deal Group", while on circular letters they have extended the idea now to Local Union No. 11 of Albany, signing in the same way. The

cost per issue can not be less than \$250, plus \$250 for mailing.

We have come into possession of the following documents reproduced photographically. Note carefully the instructions in the facsimile memorandum on page 284 (facsimile 1). Notice the orders—the use of symbols by which to recognize

(Turn to page 201)

FACSIMILE NO. 6

THE AMERICAN FINANCIERS

Investigation and Protective Bureau

(INDUSTRIAL DIVISION)

Dayton, Ohio
March 3 - 32

My dear Mr. Prescott:

N.Y. City.

Yours of February 26 received and I was glad to hear that your clients have decided to accept my services. I will have 5 of my operatives in strategic positions in about a week or ten days.

Above all, you should persuade your clients into adopting our plan of holding their craftsmen together in our form of Brotherhood. In this way, they will always have a plentiful supply of native red blooded craftsmen who do not have the opportunities of going to other cities for work as is now afforded them through their present organizations. Without our plan of Brotherhood, your clients will always be gambling, with every new man they employ.

Had my advice been heeded several years ago when I suggested putting a strong pressure on the electrician, our work at the present time would not be as difficult as it is right now. And vastly less expensive.

Their officials have been in the office so long now that they are, thoroughly trained in all their duties so that we find it almost impossible to cope with them. They seem to sense and anticipate our moves in advance. However, our press agent work is bringing home the desired results and I am sure that by July 4th, victory will be ours.

With best wishes to you and your staff,

Most cordially,

G. Edgar Applegate.

P. S. I will give you a ring when I arrive in your city.

FACSIMILE NO. 7

THE AMERICAN FINANCIERS**Investigation and Protective Bureau**

(INDUSTRIAL DIVISION)

Cleveland, Ohio
April 12 - 32Mr. J. A. Jackson
Chatanooga, Tenn.

Dear Sir:

It will be impossible for me to engage on your work until some time in July as all of my best men will not be available till then.

We have a big job before us in New York, Pittsburgh and St. Louis and I could not at this time give you my best services.

However, if you can wait until I am at liberty to serve you, the results of our success in the above cities in May and June will greatly benefit your project.

Trusting that this will meet with your approval,

Yours very truly,

George E. Anderson

P. S. I could send you one or 2 men to feel out the sentiment in your locality.

AN ANALYSIS, By G. M. Bugniazet

each other! Who is PARK AVE.? It is notable that the Building Trades Employers' Association has its headquarters there. Notice Instruction No. 10, designed to foster religious prejudice! Note No. 11—payment in cash.

Now turn to facsimile production No. 2 on page 286.

And then read facsimile letter No. 3 on page 287. SO—they maintain branches, and have real funds! Whence come the funds? Read what they think of our members ("pigs is pigs") in the second para-

graph! And the instructions as to publication! And the fifth paragraph—to the effect that they are working in several cities!

Read facsimile letter No. 4 on page 288 dealing with Baltimore. They tried to start a dual local there, but we were successful in preventing them.

Then examine facsimile letter No. 5 on page 289. Old stereotyped material this, you will note!

Facsimile letter No. 6 (on page 290) suggests that they are operating on a national basis! Want to have a dual brotherhood! And have been at

(Turn to page 293)

FACSIMILE NO. 8

THE AMERICAN FINANCIERS**Investigation and Protective Bureau**

(INDUSTRIAL DIVISION)

Buffalo, N. Y.,
April 16th, 1932.Order No. 34
RE: L. U. 3 Elect.**Operatives:**

Upon receipt of this, you are to redouble your efforts to get some more contact men in your service. The older their card, the better our results will be.

If possible, have them and their wives and their friends' wives visit one another, plan parties, if possible, coach them so that their talk will center on the policy of insurances. Stress the money-making possibilities, the officers (especially the one in Washington) have. Use all the imagination at your hands. That is what you are paid for.

The opportune time has arrived for contacts Nos. 4, 7 and 9 to start their speaking campaign. See to it that they have them well rehearsed.

Remember that you cannot have too many candidates, do not be alarmed if others than your contact men run for office. The more that run, the easier it will be to defeat the present regime. Use every means available to keep them in court litigation. This is the best way of reducing their treasury. Another method of doing this is giving donations to the unemployed.

Try it at every meeting.

In your contacts with the Press, play up the cost to the public.

Don't omit reaching the rank and file through the other trades.

Repeat tactics of Instruction No. 16.

Don't forget Democracy appeals to everyone.

In forecasting events, real or imagined, be more vague.

By no means is one contact man to know that you have dealings with another contact man.

If you need more operatives to accomplish this, let me know and they will arrive promptly.

FACSIMILE NO. 8 (Continued)

THE AMERICAN FINANCIERS**Investigation and Protective Bureau**

(INDUSTRIAL DIVISION)

Don't be too lavish with your money in the presence of a contact man; it may lead him to suspect its source.

Stress the appeal for donations always, as it allays suspicion. If possible, try to bring about a re-establishment of the list. That trick at the last meeting will hurt our cause.

The rank and file will reason when they see that there is no work to be had, and all these past months of our endeavors along that line will have been wasted.

In closing, let me remind you again to feel out the eight dollar day. Get more opinions, but by no means drop a hint of the six dollar proposal. Argue that living, clothing, etc. is down. Use your imagination.

A G A I N. remember, one-half facts and a vivid imagination has made many a good book.

Yours respectfully,

G. Edgar Applezole

P. S. - All change your assumed name and post office addresses.
No two alike.

AN ANALYSIS, By G. M. Bugniazet

work for several years on our organization!

What about the next document on page 291 (facsimile 7)—another location for an attack.

Facsimile operatives order No. 8 (page 292) is novel. Note their methods—parties—social contact! They place a number of candidates for office in the field to divide the strength, so that those hired to do the dirty work may have their solid vote, and if they win they can deliver the whole membership. They play on the sympathy of the unemployed by giving them money in order to get their votes. Old DEMOCRACY played up to fool the unthinking into collaborating with them in creating dissension by re-establishing the unemployed list, and playing upon the fears of the unemployed

caused by the lack of work. See the reduction in wages to \$8 a day, and possibly \$6 a day!

The last document—facsimile No. 9 (page 294)—should be read carefully. Note they have eight informers in Local No. 3, who have a number of years' standing and that they have some in other organizations, but our organization is a little harder to crack than the others, they assert. Note the pay plan for the dirty work! Also note that they had a hand in our early struggles, when the International was divided into two organizations, though they are wrong in the date; it was 1908.

One of the New York newspapers on May 10, 1932, carried the following significant paragraph:

"In reply to a question by Mr. Walsh, the

(Turn to page 295)

FACSIMILE NO. 9

THE AMERICAN FINANCIERS**Investigation and Protective Bureau**

(INDUSTRIAL DIVISION)

Buffalo, N. Y.,
April 16th, 1932.Building Trades Committee,
New York City.

Gentlemen:

At the request of your counsel, I am herewith giving you an outline of the activities of my Bureau in your behalf.

We have, as you probably know, eight of our informers in the electricians organization. Most of these men have been in our employ for upwards of eight years. Their cards range a number of years. The same conditions practically apply to the steam fitters, elevator constructors, plumbers, sheet metal workers, bricklayers, plasterers and carpenters. While it is true we need fewer men in these latter trades, you must take into consideration that the electrician is of higher intelligence, does not, as a rule, believe the first rumor he hears, for that reason our stories must be repeated to him oftener to get him to the point where he is receptive. We thus manage, through these eight men and the men in the other trades, to get him to listen to what we want him to hear.

We pay these informers a small weekly wage, but a liberal bonus for successful endeavors, such as circulars (we dictate), law suits, story spreading, making motions and speaking at meetings. They are satisfied with these conditions, and we are assured of their loyalty. I am straining every available source at my disposal to get them into the important positions, and thereby lessen the expenses that you now have, such as legal and press expenditures.

I have had thorough investigations made of the present officers of the electricians, but I cannot get anything that can be used that would be favorable to our side.

I do not think fiction stories as strong as (Mulatto and the President) the above story never came true. In closing, I will again remind you that the tactics I am using were successful in 1905 and in the McNulty Reid affair later. I believe that by using the above tactics, and in addition, to fighting all forms of insurance and centering strong opposition on their leader in Washington, we shall be successful in the near future.

Yours sincerely,

G. Edgar Applegate.

FACSIMILE NO. 9 (Continued)

THE AMERICAN FINANCIERS

Investigation and Protective Bureau

(INDUSTRIAL DIVISION)

P. S. - I am sending to each of you gentlemen, copy of my orders to my personal operatives who, in turn, issue them to our informers, who are termed "contact men"

AN ANALYSIS, By G. M. Bugniazet

counsel for the 15 plaintiffs declined to say whether his fee was being paid by the Building Trades Employers' Association, and denied emphatically that the League for Industrial Rights was financing the examination

* * *

Note the above answer of the counsel for those who are suing the local in the hope to help capture it. They hope it can be delivered to those paying the bills so that the members, wages and conditions can be slaughtered.

Mr. Walsh is Frank P. Walsh, counsel for Local Union No. 3. The answer of counsel for the 15 members who are plaintiffs against the local, does not deny the Employers' Association is paying the bills, but emphatically denies the League for Industrial Rights is paying the heavy costs.

"Labor Age," supposedly a friendly paper to labor, published an attack upon us by one Louis Budenz. The following is the information we have on him:

Prides himself as a leader of an opposition group in Local Union No. 3.

Lost a year-long Hosiery Workers' strike in Kenosha, Wis., where he spent about \$1,000,000.

Connected with the Hosiery Workers' strike in Paterson, N. J., which he also lost.

After being in the employ and on the payroll of the Hosiery Workers and almost ruining them financially, he is now forming an outlaw group in Philadelphia, known as Hosiery Workers, Branch No. 1.

These documents taken together compose an amazing record of crookedness. They account for the so-called unrest in local unions at several points, and above all else they show why adverse publicity against our union is appearing in hostile newspapers and magazines.

The answer is now in our members' hands. If they go along with those who always find fault and with those who see nothing that is done which can be called good, then they can not blame anybody but themselves if they deliver the organization into enemies' hands and wreck their own future economic conditions.

I am sure this will not be the answer. I have faith in the membership. They have been tried before, and never found wanting. Now is the time for all members to forget their petty feelings and support tried and true policies and tried and true men all along the line. Put not your faith in adventurers and crooks. Let our membership show these wreckers that electrical workers are loyal members and will go down the line fighting for their organization as they always have in the past.

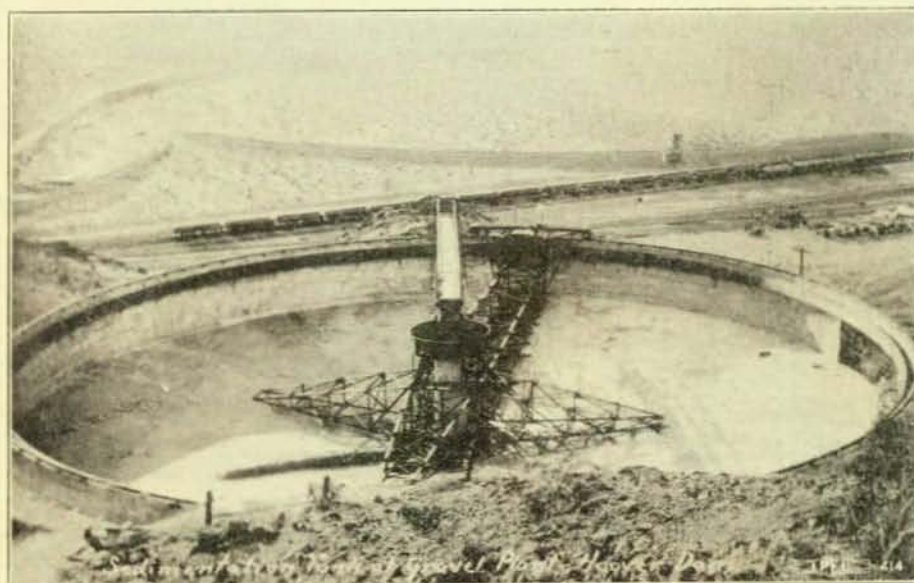
P. S.—For the information of the membership we are continuing our investigations to uncover further activities of spies against the union. We have several investigating organizations working, and we expect further startling results.

Conditions at Boulder Dam Not Cleared Up

A REPRESENTATIVE of the International Brotherhood of Electrical Workers has once again visited Boulder Dam.

His report reveals continuance of shameful conditions. Since the white-wash report of the Associated General Contractors, and since the shocking strike of last summer, conditions have not improved. A condition of virtual censorship, however, has been set up, and this accounts for the specious air of noble accomplishment.

Great medieval work-city, under the protective arm of Uncle Sam. Cordon of Federal Police drawn around project. Only friends can "see". Government acting as sweat-shopper. Six Companies, Inc., issues company scrip.



Sedimentation Tank at Gravel Plant, Boulder Dam.

The following startling paragraphs are taken verbatim from our representative's report:

Boulder Dam and Las Vegas are cities with a unique western personality, where persons of all classes have come to be ship-wrecked, partially salvaged and then merged with the rugged atmosphere. Idleness breeds its own mental diseases in the families of the workers and their social and business relations to each other. The three vices (so typical of the early gold rush days of California), liquor, women and gambling, are highlights in the city of Las Vegas. There you have the tone of the picture created in color by this great enterprise.

The common labor is paid 50 cents per hour, skilled labor 75 cents. A single man is charged \$1.60 per day for room, board and hospitalization. A married man may rent a two or three room house from the Big Six Company (a group of lax virtue) for \$20 or \$30 per month; light, fuel, garbage, etc., being extra. According to statements made to me by many of the more intelligent workers, the Big Six Companies figure to get back at least 65 per cent of the money they pay out in wages. There are three working shifts on the site—day, swing and night-shifts. The different crews are subject to layoffs of varying duration. Only three holidays are recognized

(partially—Fourth of July, Labor Day and Christmas).

The very fact that the Big Six Companies issues scrip to employees which is honored only in the companies' stores indicates that a man must struggle here for existence. All men, after the tenth day of employment, are compelled to pay

a \$6.00 poll tax to the state of Nevada. The Big Six Companies are not subject to the laws of Nevada. In other words, the United States government seems to be working hand-in-hand with the Big Six Companies.

I had the privilege of examining some of the labor bureau's records and learned that: In the month of March, 1932, over 9,000 applications were on file. Over 600 of these applicants were given work. On file were 70 applications made by electricians.

A permit is given at the highway entrance by a deputy United States marshal. The city is policed by the federal government.

On all government building construction, the government furnishes all the material—labor is let by contract. Mr. Grey and Mr. Smith, non-union electricians in this city, each employ one man at 50 cents an hour. On interviewing Mr. Smith, he relates the inefficiency of his man. Results of this meeting—Smith conferred with Liebert, secretary of Local No. 357, regarding getting man.

The last government labor contract was for 26 houses, four rooms; it went for \$11,000. The electrical labor was figured at \$460.00. There is an average of 26 outlets per house, range service included. Government specifications call for conduit or steel tube. Mr. Siefert, the labor contractor, is paying a man 50 cents an hour on this work.

Las Vegas electrical contractors do not figure this government work.

The government leases the land to the individual citizen, and the tenant erects his own building. Only two business establishments of the same classification permitted. This restriction does not apply to the Big Six Companies.

Mr. Tallet, government engineer in charge of the electrical distribution, employs two union linemen.

(Continued on page 323)



General View of Black Canyon and 56 ft. Tunnel Outlets.

New Paeon Raised to Electrical Energy

A Review of Harper Leech's "Paradox of Plenty."

MR. HARPER LEECH, author of "The Paradox of Plenty" (McGraw Hill, 1932, price \$2.50), no doubt got the inspiration for his book and prepared the manuscript before the depth of the present depression was reached. Surely he would never have betrayed himself into the hands of his intellectual enemies with such audacity if he had not done so. When the stock of the captains of industry and world enterprisers is at its lowest, he comes forth with the most fulsome sort of praise for those he calls Men of Prey. To him the hero of our business civilization is the predatory type, short on culture and ideals, who drives through to his commercial ends without thought of social consequences. We suppose he means such figures as Ivar Kreuger, the generally discredited international financier, or such fantastic Napoleons of finance as E. L. Cord who sought recently single-handed to attack the highly important group of air pilots on the basis that they should be getting a wage about equivalent to Chinese coolies.

Mr. Harper Leech no doubt has in mind, too, such figures as the discredited international bankers who have sold stock to the public by bribing financial writers on important daily newspapers to mislead the public. We think that his chapter "The Real Producer—The Man of Prey" is about the most absurd piece of historical analysis that it has been our lot to meet. Mr. Leech misses the sum total of human accomplishment in industry, invention, production, and rational attainment, that is, human collaboration. As one marvels at a modern automobile purring down the street, who is it that can name the inventor of that finished product? The inventor or maker can not be named. That product is the work of thousands of men—technicians, engineers and workmen. It is a product of human collaboration, and such plungers in stocks and bonds, to whom he points as the figure-heads of great industrial enterprises, grow smaller and smaller in stature as one grows into an understanding of just how any product is co-operatively produced.

Author of Predatory Type

However, to be just to Mr. Leech we must point out that he regains his balanced judgment toward the last of his book, and speaks of "the collectivistic nature of the new social nexus of power supply calls for a counterpoise to indi-

Young writer seeks to build new system of economics based on electrified industry. Extravagant praise of Men of Prey makes his work suspect. Misses whole meaning of human collaboration. Book has interest, must be read skeptically.

vidualism and demands a control of the masterful spirit of the Man of Prey."

Mr. Leech's book also must not be brushed aside as a trivial work. It is daring, factual, imaginative, and dra-

to remain worthwhile." He shows that the richest families save fully 85 per cent of their incomes, whereas the poorest families save only about five per cent of their incomes. It is this saving of the rich that draws needed funds from production and consumption, and brings about depressions.

Mr. Leech does not neglect to show the value of credit to the industrial system. He takes some such position as Henry George, the single taxer, in maintaining that value created in the form of electrical energy out of fossil fuel belongs neither to labor nor to capital in that neither labor nor capital produced them. They come from, as Henry George said, Divine sources. "The ultimate effects," he says, "of tapping the vast reserves of potential energy buried in the earth upon all ideas of wealth and value have never been fully explored."

Apart from Mr. Leech's undue reverence for the businessman type, his book is ground for hope. It is a promise that perhaps—through human collaboration—America may build a social philosophy commensurate with its power and industrial civilization. Such a social philosophy must pass beyond a social philosophy built up in other nations under other conditions even as

our industrial set-up has passed beyond the stages of either the primitive industrialism of Russia or the older industrialism of Europe.

In China letters are respected not merely to a degree but in a sense which must seem, I think, to you unintelligible and overstrained. But there is a reason for it. Our poets and literary men have taught their successors, for long generations, to look for good, not in wealth, not in power, not in miscellaneous activity, but in a trained, a choice, an exquisite appreciation of the most simple and universal relations of life. To feel, and in order to feel to express, or at least to understand the expression of all that is lovely in nature, all that is poignant and sensitive in man, is to us in itself a sufficient end. A rose in a moonlit garden, the shadow of trees on the turf, almond bloom, scent of pine, the wine-cup and the guitar, these and the pathos of life and death, the long embrace, the hand stretched out in vain, the moment that glides forever away, with its freight of music and light, into the shadow and hush of the haunted past, all that we have, all that eludes us, a bird on the wing, a perfume escaped on the gale—to all these things we are trained to respond, and the response is what we call literature.—G. Louise Dickinson.



matic. His general thesis that an electrified industry is capable of producing a plethora of goods can not be denied. His criticism of both capitalism and Marxian socialism as arriving from the same premise is striking. This premise, he declares, is the belief that value is determined by scarcity. Both Adam Smith and Karl Marx accepted this view of production. This view is unsound in modern days, for there is no scarcity in production. Therefore, a new view of value must be taken, and a new theory of social classes evolved. Mr. Leech does not evolve this new theory. He only hints at its arrival, but happily implies that it is going to be more of an adventure in human collaboration. He says, "So many financiers and employers were recently willing in the abstract to admit that high wages are possible and desirable may have marked the beginning of the end of the old system of economic thought based upon the scarcity concept of value." He continues—and we think soundly—"the nature of wealth is so changed that Dives (the rich man) must take less and less out of the industrial process if the ownership of enterprise is

Is Prosperity Shod With Silver Shoes?

*London bridge is falling down,
Falling down,
Falling down;
Stole my watch, stole my key,
So in prison you must be.
Gold, or silver, which?*

ONE is reminded of this old children's rhyme, as he contemplates the steadily growing sentiment for silver remonetization. Senator Borah has told the U. S. Senate that there are three roads to economic recovery, one of which he named as a revaluation of silver.

The extent to which silver has caught the popular imagination is indicated by the fact that the organized farmers of Oregon are circulating petitions designed to influence Congress to pass the Wheeler bill calling for the bimetallic system of currency. Such a petition has been sent the *ELECTRICAL WORKERS' JOURNAL* by Mrs. Julia S. O'Brien, of Washington County.

The petition follows:

"We, the following citizens of the United States, desire the re-establishment of the bimetallic system of cur-

The west appears to think so. Growing demand for a revaluation of silver's place in world economic life.

rency, employing both silver and gold on the 16-to-one basis, as proposed in the bill by Senator Burton K. Wheeler of Montana, S. 2487 (Senate two four eight seven), now before the Ways and Means Committee.

"Silver was demonetized in 1873. The day after gold was made the single standard wheat dropped from \$1.25 to 40 cents a bushel. An immediate panic was started. Industrial plants closed down, wages were drastically reduced, farmers lost their homes, and the country was filled with homeless and starving.

"Since 1873, panic has followed panic, ending in the entire collapse of our whole economic structure in 1929. There is no law enforcement today. Crime is unchecked. A small powerful,

privileged class controls the country. Citizens numbering millions are homeless and starving. The gold standard is a failure.

"The only bill now before Congress that offers any permanent relief to all citizens of the United States, is the Wheeler Bill, S. 2487, for the remonetization of silver, and we therefore request its immediate enactment."

Kern County Labor Council, California, has gone on record in favor of remonetization of silver.

The theory underlying the bimetallic standard has been expressed simply by Charles W. Beale, a lawyer, of Wallace, Idaho. His pamphlet, "The Remonetization of Silver," has been circulated in the west:

"Business is conducted on credit.

"Credit is based on money.

"The volume of money fixes the prices of commodities and the wages of workers.

"Increasing the volume of money increases the prices of commodities and the wages of workers.

(Continued on page 323)



Courtesy Stowell

NEW CENTER OF SHAKESPEARE LITERATURE—WASHINGTON'S NEWEST BUILDING—FOLGER SHAKESPEAREAN LIBRARY.

6-Hour Day Fight Opens on Railroads

"An enterprise is not a success which fails in the primary objective of its creation. It must provide a livelihood for those engaged in it."

THE foregoing may be said to state grandly and simply the gist of the preliminary argument made by 20 standard railroad unions before the Interstate Commerce Commission for the institution of the basic six-hour day.

Donald R. Richberg is acting as counsel for the unions. The case takes a dramatic significance as the first formal attempt of the unions to combat technological unemployment. The case was presented pursuant to a Congressional resolution.

Excerpts from the brief read like a new primer of industrial principles:

"What is the 'service' to which the resolution refers? The common interpretation of the 'service' of an industry is the service which it renders to others than those who engage in it. There is frequently an altruistic connotation given to the word 'service'. In other words, it is a common assumption that an industry or a particular enterprise primarily 'serves' its consumers, or 'serves' its patrons. But the present unhappy industrial conditions have written a new lesson, which many millions of people have learned for the first time, the lesson that the protection of our 'prosperity' and the maintenance of our 'civilization' depends upon the largest possible employment in gainful occupations of those who are able and willing to work.

To Feed Mouths

"We have had recalled to our attention an ancient, but long forgotten, truth that the primary purpose of industry is to furnish a livelihood to the industrious. We should no longer deceive ourselves with the romantic notion that a man works, or that an industry is established and maintained, for the primary purpose of serving others. The primary purpose for which any man or woman engages in a gainful occupation is to earn a livelihood, unless that man or woman is supported by some one else whose primary purpose is to earn a livelihood. Those who depend upon the work of others for their support, those who depend upon properties which are made income producing by the work of others, are all dependent for a livelihood on the work of those who do engage in labor for the primary purpose of earning a livelihood. There is no other way in which the social, economic, political system under which we live can operate successfully, except through maintaining industries which provide a livelihood for those who engage in them, so that the masses of the people are gainfully employed.

"If industries are operated for the primary purpose of providing a livelihood to those who engage

Unions appear before Interstate Commerce Commission in long struggle to beat the machine. Clear-cut brief based upon tested wage and work principles presented.

in them, our social, economic, political structure may remain sound. If they are operated for the alleged purpose of providing altruistically, or under compulsion, a livelihood to those who do not work in them or to produce goods and services which maintain or enrich the lives of others—our economic machinery will inevitably and frequently operate as badly as it is operating at the present time and will eventually destroy itself; because it will be fundamentally unsound and opposed to the self-preservative demands of human nature. The first necessity imposed on every human being is to take care of himself; and only after he has taken care of himself can he be called upon, or can he have the ability, to take care of others.

False Type of Service

"There is an essential unsoundness in the theory, unconsciously held by many otherwise sane persons (especially prior to the present depression), that the only purpose of a large industrial enterprise should be regarded as the production of services for customers and profit for investors. When a cobbler makes a pair of shoes or a cab driver operates a vehicle no one assumes that he engages in the occupation to satisfy a craving to serve his fellow man. He may desire to make good shoes, or to furnish good transportation, but he goes to work primarily to earn a living. So does everyone who is not supported by some one else who does work for a living.

"A corporation, an industrial enterprise, is only a medium for the co-operation of many men in working for a living. The primary purpose of the industry is the composite of the individual human purposes of those engaged in the industry. Nothing else in industry is capable of having a purpose. 'Success' is the accomplishment of a human objective. An enterprise is not a success which fails in the primary objective of

its creation. It must provide a livelihood for those who engage in it.

"It may be suggested that a 'public service' enterprise is established and regulated by public authority in order to obtain services for consumers. But it still remains true that men engage in such an enterprise primarily to earn a living. Moreover, it is clear that a privately owned and managed public utility is not a co-operative agency of consumers, but is organized and operated as the private enterprise of those who seek to earn a living out of it. We recognize, however, the obligation of all who engage in a public service enterprise to furnish that public service upon which the general welfare depends. This obligation must be met and nothing presented in this statement should be construed as inconsistent with a whole-hearted acceptance of that obligation by railway labor.

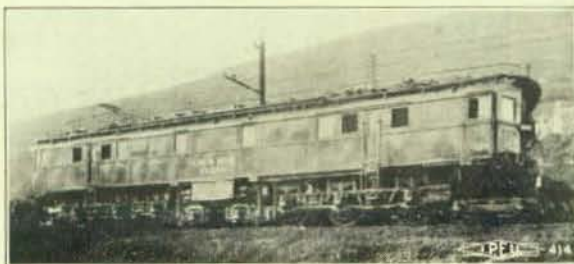
"It is not our desire at this point to enter upon an extended discussion of economic theories, but merely to point out that in investigating the effect upon the 'service' of the railroad industry of the application of the principle of the six-hour day, the commission should not consider solely the 'service' rendered to customers; but should give even more attention to the primary service of the industry in furnishing a means of earning a livelihood to over 1,500,000 employees. * * *

Primary Problem

"It has become evident that we must solve the problem of unemployment as a pre-requisite to solving all other economic and political problems. If an opportunity to earn a livelihood is afforded to every one able and willing to work, we have clearly the capacity to produce the goods and services which are necessary to maintain and to improve the present standard of living. But if we disregard the necessity of furnishing everyone an opportunity to earn a livelihood and devote our attention to the production of goods and services and to maintaining artificial values of ownership rights, unemployment will continue to be recurring, and evidently a growing problem. And with recurring periods of unemployment there will be wiped out periodically enormous property values with the consequent undermining of the very foundations of our economic and political structure.

"For the reasons briefly suggested, we desire to emphasize the fact that the primary service of the transportation industry, as of every other industry, is that it serves to provide a livelihood for somewhere between 1,500,000 and 2,000,000 men and thereby (counting their dependents) to provide a livelihood directly for about 8,000,000 people. The purchasing power of the wages paid by this industry

(Continued on page 324)



Catholic Council Envisions End of Era

AN important symposium on Pope Pius' "Forty Years After—Reconstructing the Social Order" by church leaders serves to stress anew the place of labor in the coming social order. Quotations from this symposium, carried in the May "Catholic Action", organ of the National Catholic Welfare Conference, are of interest to American trade unionists.

Rev. Dr. John A. Ryan, on "Indictment of the Present System":

"The most effective presentation of the Holy Father's attitude under this head is provided in his own words. The following paragraphs from his 'Reconstructing the Social Order' encyclical embody the most striking of his critical judgments upon the existing economic order.

"The wealthy were content to abandon to charity alone the full care of relieving the unfortunate, as though it were the task of charity to make amends for the open violation of justice, a violation not merely tolerated, but sanctioned at times by legislators. * * *

"Capital was long able to appropriate to itself excessive advantages; it claimed all the products and profits and left to the laborer the barest minimum necessary to repair his strength and to ensure the continuation of his class. For by an inexorable economic law, it was held, all accumulation of riches must fall to the share of the wealthy, while the workingman must remain perpetually in indigence or reduced to the minimum needed for existence. * * *

"The immense number of propertyless wage-earners on the one hand, and the superabundant riches of the fortunate few on the other, is an unanswerable argument that the earthly goods so abundantly produced in this age of industrialism are far from rightly distributed and equitably shared among the various classes of men. * * *

"Every sincere observer is conscious that the vast differences between the few who hold excessive wealth and the many who live in destitution constitute a grave evil in modern society. * * *

"It is patent that in our days not alone is wealth accumulated, but immense power and despotic economic domination is concentrated in the hands of a few, and that those few are frequently not the owners, but only the trustees and directors of invested funds, who administer them at their good pleasure * * *."

Rev. Francis X. Foley on "Property":

"He assumes, as axiomatic, that title to the fruits of labor is acquired by a workingman only in that form of work which he fulfills as his own master, and by which some original or new form of value is produced. It follows from this that unless a man apply his labor to his own property some form of alliance must be made between his toil and his

Comprehensive commentary on Pope Pius' Encyclical illuminates economic questions. Labor's place clearly defined.

neighbor's property. It is therefore entirely false to ascribe the results of their combined efforts to either party alone; and it is a grave violation of justice that either should deny the efficacy of the other and take to himself all the profits accruing from the union. * * *

"Each class, then, must receive its due share, and the distribution of created goods must be brought into conformity with the demands of the common good and social justice."

Rev. Dr. Joseph Husslein, S. J., on "Wages":

"As the encyclicals, so the Scriptures themselves contain numerous passages laying down the obligation of a living wage and the time within which it must be paid. The man who deprives the worker of his wage is placed by the sacred writer in a like category with the criminal who murders his fellow-man: 'He that sheddeth blood and he that defraudeth the laborer of his hire, are brothers.' (Ecclus. xxxiv, 13.) * * *

"That the Christian ideal of the minimum wage to be paid to the adult male worker, as head of a family, should be sufficient to keep his home in decent comfort; to educate his children in accordance with reasonable standards; to prevent his wife from being wrested

from home and children by the far-reaching arm of a greedy commercialism; to lay up what should normally suffice for the day of sickness, accident or old age; and finally to enable him to transmit at least some little property to those whom he has rightly and sacredly cherished in life—all this is a truth too obvious to dilate upon. For the adult woman worker that minimum wage must be sufficient that she can independently provide for herself in the same degree of modest decency."

Rev. Francis J. Haas on "Unions":

"It may be said that the suspicions of employers regarding the purposes of unionism have diminished much more rapidly in European industrial centers than in the United States. Because of either ignorance or selfishness great numbers of American employers and commercial leaders still denounce union officials as 'Socialistic or revolutionary agitators.' A considerable amount of education in realism and in old-fashioned truth-telling still remains to be done in the United States. * * *

"At present the impersonal employer, the stockholder, has largely supplanted the personal employer of a generation ago. The impersonal employer acts through delegated agents, chosen by keen competition for their posts. It is imperative that laborers be represented by agents no less trained and skillful than those of employers. This arrangement requires a system of delegated officials of workers, which in turn requires union organization.

"Unquestionably, if American wage earners were organized up to 80 per cent of their number, instead of up to 15 per cent as is now the case, they would receive more wages. But it is objected that if eight out of every 10 American workers were organized, industry could not pay the increased wage bill; even during prosperous years receiverships would multiply.

"The answer to this objection is that urban industry is only one part of the national economy. The other is agriculture. If prior to 1929 there had been 25 per cent more persons on farms than there actually were, urban industries having a correspondingly smaller labor force, could have paid ample wages to all their employees. Doubtless before 1929 there would have been more persons on farms and fewer in cities if farming had been given its fair share of the national income. The highly desirable result would have been achieved if farmers had been effectively organized in co-operative marketing associations. This is precisely the remedy 'Reconstructing the Social Order' advocates for agriculture. The Holy Father warmly commends 'the gratifying increase and spread of associations among farmers'."



REV. FRANCIS J. HAAS, Ph.D.
Director, National Catholic School of Social Service.

(Continued on page 326)

Wagner Committee Reports on Job Insurance

EXTENDED excerpts from Senate Report 629 on unemployment insurance are here given:

Failure of Private Charity

It is needless to establish that charity, whether public or private, should be the last resort and not the first choice in dealing with the economic problem of the men and women who are today in difficulty by reason of the widespread economic disturbance.

This mode of relief calls for greater voluntary contributions by the citizen and for higher taxation at the very time when incomes and values are reduced. The consequences are fully evident in the present depression: Inadequate relief in spite of extraordinary efforts of private citizens, states and municipalities; widespread suffering, destitution and malnutrition; physical and spiritual deterioration.

Is there a better way, a more intelligent method of dealing with the risk of involuntary unemployment? Can we by adequate preparation preserve the people of the United States against the suffering attendant upon widespread unemployment?

Extent of Systems Abroad

Compulsory insurance against unemployment under state auspices, however, dates from the passage of the British insurance act in 1911. Eight years later, in 1919, Italy also adopted a system of widespread compulsory insurance and was followed by Austria, Bulgaria, Germany, Luxemburg, Poland, Russia, and Queensland. In addition to these nine countries, eight others—Belgium, Czechoslovakia, Denmark, Finland, France, Netherlands, Norway, and Spain—have voluntary systems of insurance. In Switzerland some of the Cantons have made insurance compulsory, while others have instituted voluntary systems. Upon the establishment of the Irish Free State the compulsory system of insurance theretofore prevalent was continued.

In all of these countries the insurance systems, even where privately organized, are encouraged by the state. In all of these, except Austria, Germany, and Italy, the state contributes part of the premium costs.

British System

The British system was originally created to provide for an average unemployment of less than 6 per cent of the number insured.

In no year since 1921 has the percentage of unemployed in the insured trades in Great Britain been less than 9.7 per cent.

It is interesting to observe that in spite of the increase in the scale of benefits since 1921 and in spite of the relaxation of the conditions for receiving benefit the British insurance fund

Senator from New York makes comprehensive statement in regard to compulsory unemployment insurance.

improved its condition between 1921 and 1924 and in the latter year actually operated at a profit of \$45,000,000.

The sturdiness of the insurance system is further revealed by the fact that in spite of further increase of benefits after 1924 and in spite of further liberalization of the right to benefit and despite the devastating effect of the coal strike and general strike of 1926 the fund had after 20 years of unemployment insurance accumulated an indebtedness which stood on the eve of the present depression (March, 1930) at only \$200,000,000. Subsequently the debt steadily increased until it reached \$500,000,000 by September, 1931. During the past six months, despite no appreciable reduction in the degree of unemployment, the debt has remained approximately static because of an increase in premium rates and a reduction in the rate of benefits paid.

Certain factors, however, must be taken into consideration in measuring

that debt. First, almost half of the amount of the debt, namely, \$225,000,000 represents the cost of administering for over 20 years an elaborate system of labor exchanges, an interest charge of over \$50,000,000 for funds borrowed from the government, and all other overhead of the insurance system. Second, it is a fair inference that a very large proportion of the debt represents not the cost of the insurance system but of the pure relief which was dispensed through the mechanism of the insurance system.

Careful calculation has shown that the entire amount of the debt would be repaid by the normal operation of the insurance fund within five years if the rate of unemployment fell to an average of 10 per cent.

It should be evident from the foregoing analysis that the British unemployment insurance system can not truthfully be called a "dole." Evidence in the hearings reveals that 82.5 per cent of all the benefit payments during the life of the insurance system were supplied from premium receipts and that only 17.5 per cent comprised extraordinary appropriations and loans.

German System

A total of \$1,500,000,000 was paid out in Germany from October, 1917, to March 31, 1931, for all forms of unemployment relief. The noteworthy fact is that more than 57 per cent of this sum, or \$858,000,000, had its origin in the premiums paid by employers and employees. The balance of \$642,000,000 represented the entire outlay of the German federal government, the state governments, and local communities for all forms of emergency relief expenditures including even local poor relief. During the year 1931 the insurance fund alone supported an average of close to 2,000,000 workers.

It is difficult to make comparisons between conditions in Great Britain, Germany, and the United States. An examination of the facts lead to the conclusion that much of the suffering and deterioration attendant upon unemployment which have been evident to the United States have for the most part been avoided in those countries and at a relative cost not in excess of that incurred by the United States.

Public Opinion Abroad

The attitude of Great Britain can be best expressed in the words of the Blanesburg committee appointed in 1926 by the Conservative government to investigate unemployment insurance. "Nobody," said this committee, "has suggested to us that the principle of unemployment insurance should be abandoned. It has been recognized by all who have appeared before us, and we ourselves share the view, that an unemployment insurance scheme must

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SENATOR WAGNER

Modernization Grows in Force as Job Cure

MANY local unions—especially those in the middle west—have adopted a permanent form of agreement providing a basis for repair and modernization work. These locals report that a gap in the wiring market is thus filled, that contractors usually are pleased at the opportunity of developing new services, and that the local membership is heartened by the creation of jobs.

Modernization as a field of employment was first stressed by the International Office in October, 1931. A booklet entitled the "Co-operative Work Plan" was circulated among all locals. Immediate response was given.

Since then, the underlying principle of the Work Plan has been applied in many cities. Rochester, N. Y., has made a notable record. Portland, Oreg., has made a community drive utilizing this principle.

J. Scott Milne, International Representative, makes an extended report on the Portland Plan:

"Labor has been represented on this Plan from the beginning. It has paid its share of the cost and done as much work as it could to make the Plan a success.

"They are still taking pledges for new work and each day sees some new pledges turned in. The amount of completed pledges is increasing each day. The committee is now checking on the pledges to see that the people complete their work.

"The weather has been very bad and all work has suffered from this cause. Only in the last few days has the weather been such that one could work outdoors without being soaked with rain. With better weather coming, the pledges will be completed more rapidly.

"Labor realized that much of this pledged work would be done by others than their members—such as garden work and house cleaning. They also realized if they could keep certain men busy on this kind of work they would not be bothered with them on building work.

"The percentage of work that labor has received from this Plan cannot be given at this time. The completed pledges are now being tabulated and the percentage of different work made up.

"Representatives of the various bodies of the labor movement in Portland declare it is too early to tell of the results of the Plan. They are still working with the Portland Plan Committee in securing additional pledges. They expect the most good to come from the Plan in the next five months.

"Saturday, May 7, the Portland Plan Committee had a large parade through the downtown section to advertise the start of clean-up week and to instill some new pep in the Portland Plan. The American Legion convention will be held in Portland this year, and they are trying to tie this with the need for clean-up week.

"Business Manager Lake, of Local No. 48, Portland, reports they have secured

Plan begun last fall as Co-operative Work Plan, though widened in scope, attracts strong allegiance. Locals see it as only immediate chance for jobs. Permanent policy instituted. Portland, Oreg., Plan described.

in the last few weeks many jobs through the Portland Plan.

"In summing up the whole Plan I would say it has accomplished a great deal. Many of the pledges returned show the parties have spent much more than they intended. Or as the old saying has it, 'One good turn deserves another,' and the doing of one job shows up the defects and it becomes necessary to do others to make the whole job complete. * * *

"The Portland Plan was sponsored by the Oregon Building Congress and has been in progress of organization since August of last year.

"Funds for carrying on the work are subscribed by the clearing house, utility companies, various labor organizations, material dealers, real estate firms, archi-

tecs and contractors' groups, with the strict understanding that they will not in any way benefit directly.

"Office space, furniture and typewriters have been loaned to the office.

"Billboard space, street car and moving picture advertising, as well as a great deal of printing have been donated.

"Radio stations have all given liberally of their time, trained speakers being furnished by the Junior Chamber of Commerce, the East Side Commercial Club, Mr. Walter W. R. May, associate editor of the Oregonian, our general campaign manager, as well as Mayor Baker and City Commissioner Riley. These same speakers have talked before all civic and community clubs.

"City and community newspapers, also magazines, have given liberally of their space, a great deal of which has been front page. In connection with this, would say that we have a paid publicity man.

"Every house, apartment, store, office building, theatre, church and factory is being systematically canvassed, and with gratifying results. We will have a mop-up squad working until May 1, at which time the annual clean-up campaign will take up the work and follow it up for another week.

"The city was divided into districts, using fire station limits and fire stations in each district as headquarters. This was a mistake, in that fire districts are too large. School districts would have been better.

"The East Side Commercial Club took complete charge of the east side of the river. They laid aside everything, except routine work, and devoted their entire time and energy to this work. Their members worked as captains and lieutenants and solicitors being composed of parent-teacher organization members together with hundreds of volunteer workers.

"The west side districts were handled differently in that the veterans' organizations took one district, women's clubs a district, the city fire department another district, etc.

"A mop-up squad composed of city firemen and city police in civilian clothes combed the city for localities that have been poorly solicited or missed entirely.

"We did not make the mistake of starting our campaign drive before all of our ground work was laid and everybody in the city had had time to understand thoroughly what it was all about. Consequently, the people of Portland generally, became very enthusiastic and put their shoulders to the wheel to make it a thorough success.

"All pledges are kept strictly confidential; with this understanding, property owners were a great deal more willing to sign the pledge than they would had they thought that their pledge would be public property, and that they would be hounded by every Tom, Dick and Harry wanting to do the work.

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Friend of Gompers Dies



ALBERT THOMAS

President of International Labor Bureau. Comparatively young, Mr. Thomas, French labor leader, was mourned by representatives of 42 nations. Was known in America for his long professional contact with Samuel Gompers.

Public Works, War, Or Real Collapse?

LABOR has seen a tremendous gain in public sentiment during the past months for a comprehensive public works program, including needed housing, and especially slum clearance.

Although at this writing action in Congress has not been clarified, there is a good deal of conversation on the part of congressional leaders as to what plan should be undertaken. It seems certain that some kind of public works program should go into effect before the congressional session ends.

Underneath the tardy tactics of confused Congressmen are heard deep and sinister predictions for coming months and years in these United States. Three alternatives appear as the way out: First, by the route of complete collapse; second, by the age-old method of costly international warfare; third, by a well-planned, comprehensive program of public works. The dreary months of depression since black October of 1929 have brought the realization that only by steady, intelligent, planned efforts can the United States emerge from the desert of waiting for an automatic recovery.

During the past month the American Legion, the American Engineering Council, and the Associated General Contractors, besides numerous individuals, have expressed belief in a public works program. More and more Congressmen have been converted to this point of view. Economists continue their pleas for such a program. They have been in the fore ranks of advocates for the past three years. For instance, Edwin R. A. Seligman, economist of Columbia University, has written to Senator Wagner in warm support of Senator Wagner's huge program. Professor Seligman is counted one of the conservative economists of the country:

"I doubt whether even if capital were made entirely costless—that is, if the discount rate were reduced to zero—the wheels of industry would be set in motion again at once. The industrialist today is more anxious about a possible market for his goods than the cost of producing those goods.

"What we need, therefore, is not simply more available credit, although that is good so far as it goes, but the actual setting of the wheels of industry into motion. I do not see how there is any other recourse at present, except a program of governmental outlay on a large scale."

Public sentiment has also grown in the direction of slum clearance. Few advocates of the public works program have omitted slum clearance from their project. Mr. H. I. Feldman, architect, has recently reviewed the housing situation in foreign countries. He says:

"England has been experimenting with municipal housing for the past 30 years. In London alone 50,000 dwellings were completed up to 1926. The slums of London have been practically eliminated.

Gradually powers-that-be begin to see salutary value in public works program. Tremendous gain in pro-sentiment made in last month.

The efforts of English authorities have been to place workers in garden cottages rather than tenement houses. Notable examples built by private initiative worthy of mention are Port Sunlight and Letchworth. In the 10 years following the war, 1,000,000 homes were built in England and Wales, and 100,000 in Scotland, accommodating one-eighth of the population.

"In Germany, as a result of measures for government loans to encourage co-operative housing societies, between 1919 and 1928 housing was created for 1,100,000 families. Now Germany has a lower death rate than the United States for the first time.

"Holland has re-housed one-fifth of her population with public societies since 1915 and mostly since 1920. In Belgium over 200 benefit societies were formed. In France over 500 housing societies have been formed by the government for low-rent dwellings.

"In Italy municipal buildings have been conducted on a large scale by two great credit societies. A considerable part of this credit has been spent building model flats. As a result of government control, artistic dwellings and an abundance of light and air have been produced with gratifying results."

Congressmen are largely concerned with the problem of how money shall be raised for such a program. The general need for such a solution is now generally admitted.

Two Authorities on Public Works:

Felix Frankfurter, of the Harvard Law School:

"Personally, I believe we ought to go even further than the very limited program which you [Senator Wagner] are sponsoring. I believe we ought to take up long term improvements, which a rich country, looking to its future welfare, would not be justified in delaying. Such improvements are the following:

"1. Extensive afforestation.

"2. River control, so as to prevent floods, store water for irrigation and power, and improve navigation.

"3. Parks and sanctuaries.

"4. Adequate penal institutions.

"All these seem wiser than added expenditures for highways at this time. We have enough highways for the present, their cost of maintenance is great, and they worsen the condition of the railroads."

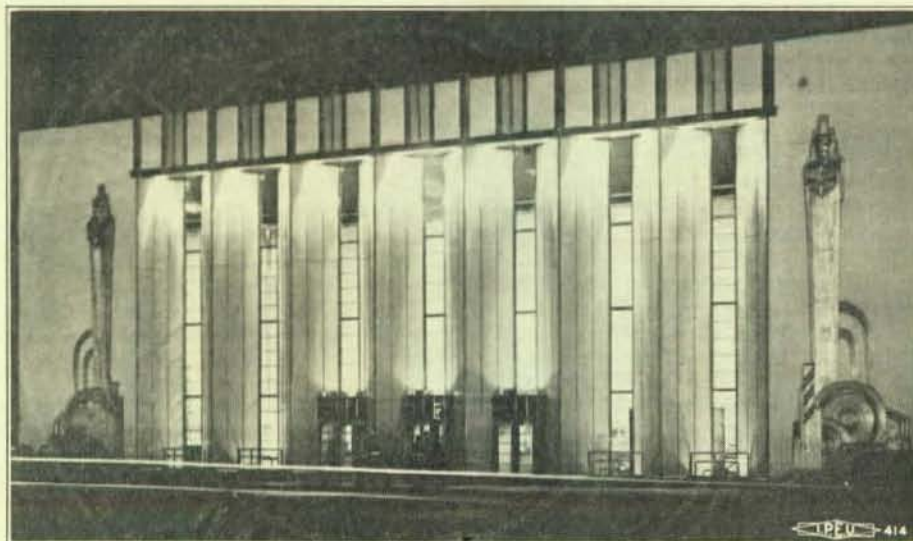
Sumner H. Slichter, Harvard economist:

"The Federal Reserve System, as you undoubtedly know, has recently inaugurated a bold effort to stimulate spending by attempting to make money easy. Time alone will tell how successful the reserve board's policy will be. Certainly in the present state of markets and confidence, many concerns will be slow to spend simply because credit happens to be cheap.

"The reserve board's policy is good as far as it goes, but it needs to be reinforced and supplemented by something else. At the same time that the reserve board is encouraging business to spend more, the government in its own budget is pursuing exactly the opposite policy.

"Thus there is a sharp conflict between the reserve board's policy and the government's fiscal policy, and this is a

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Like Huge Pipe Organ is Facade of Electrical Building at Chicago's New World's Fair. Public Works in Fact.

Foreman, Key to Shop Education

A NEW book on the ever pressing question of industrial training has come before the public within the past month. "Educational Experiments in Industry" (The Macmillan Co., \$1.50), by Nathaniel Pfeffer, is a factual summary of efforts now being made by both private and public agencies along these lines.

Present industrial training centers in the pivotal aim of raising the efficiency of the individual workman, through broadening his store of specific information related to his job. The goal is neither general nor cultural. Only such facts are imparted as directly pertain to the occupation and will increase the understanding and ability of the worker in his daily performance. When instruction is conducted by private corporations or employers' associations, the promptive motive is definitely monetary. The decisive question asked is always: Will it pay?

These aims, as the author points out, are diametrically opposed to those of what is commonly known as workers' education, which is

"a technical term to describe the educational efforts of labor unions and class-conscious workers to fit the working class to take a more responsible and directive share in controlling the economic order. It is therefore concerned with economics and sociology primarily: with analysis of the existing order to the end of bettering it. This is furthest from the objectives of education in industry."

This does not mean that industrial enterprise never undertakes the teaching of economics, civics, industrial public relations and public utility problems to its employees. It frequently does so. Although the author makes no mention of the fact—for he carefully avoids taking any personal stand either against or in favor of the labor movement throughout the book—it is only to be expected that when such subjects are offered they are taught from the viewpoint of the sponsoring institution.

The present theory of employee training is far from new. It is rather a revival of the old apprentice system of the craft guild period, adapted to the modern economy—a harking back to the adage that learning comes best by doing. Preliminary job training through formal classes in corporation or other schools has rapidly been abandoned within the last decade in favor of training on the job under the tutelage of the supervisor or foreman in charge. Whatever the workman coming new to the job discovers of his duties and their performance he must pick up from his own observations or learn at the hands of his immediate superior. This throws the burden of responsibility upon the latter. The foreman becomes the key-man.

Corporations recognize this truth and act upon it. Survey of employer types of education made.

Foreman, a Top Sergeant

On the basis of this theory it is deemed that any educational efforts undertaken by industry should lie concentrated upon the foreman, that he may be equipped with the necessary knowledge and understanding of all the work under him to impart to his subordinates. To this end practically all of the larger corporations and many of the smaller also have inaugurated foreman conferences conducted by specially trained leaders. These conference series take the form of general discussions of the problems which foremen must face—problems of how to handle men, how to present instruction to newcomers, how to raise the efficiency level of their workers by teaching new methods.

Strictly Company Instruction

Although in theory foremen occupy such a vital position in education in industry, instruction is by no means limited to them. Virtually all of the important producing concerns of the country have well established apprentice schools for the training of new or especially selected boys. In most of these schools the boys spend the major portion of their time working as mechanics or mill-wrights in the shop with four hours a week spent in more or less formal classes where they study such subjects as shop mathematics, technical physics, electricity and magnetism, blueprint reading and mechanical drawing—but only in so far as those subjects apply directly to the work of the particular plant. Instructors are usually taken from within the company. Classes vary somewhat, but it is not unusual to find the use of textbooks, recitations and examinations. Many industrial firms train their young workers upon what is known as the co-operative basis. This is similar to the apprentice training except that the time is evenly divided between shop and classroom, students alternating from one to the other on a week-about or month-about schedule.

The out-of-hours school which offers late afternoon or evening classes on a greater variety of subjects open to all employees, forms an integral part of education in industry. It is in such schools as these that we find whatever courses exist in general physics, chemistry, history, economics and psychology. But for the most part industry makes no effort to duplicate the cultural educational facilities of the public school system.

Charge Workers for School

Tuition in these schools varies from 25c per semester in the Western Electric Evening School at Kearny, N. J., to \$210 per year at General Motors Institute of Technology at Flint, Mich. In many companies it is practically compulsory for a workman to take some outside study in the company's school if promotion is desired.

One of the chief obstacles in the path of job training is its financial burden. A plant of only 300 or 400 employees, and this size makes up the bulk of our industrial concerns, cannot hope to maintain its own school. Many industries have found it advantageous to pool their resources and thus by joint effort carry on a training system through a central educational department, which sets the standards for the industry, keeps records, prescribes texts and holds examinations.

One of the most important media of job training is our public trade and vocational school system. Impetus was furnished to this movement in 1917 by the passage of the Smith-Hughes Act, which provides for federal subsidies to states which conduct such schools. This is the type of school with which corporations usually co-operate when they desire to carry on training but have not the facilities to do so at their own plants. State university extension courses provide similar facilities, though usually on a different academic plane than that of the public vocation school which aims to teach specific trades.

But the trade and vocation schools are too remote from the actual industrial situation. It is no longer possible for them to duplicate modern power machinery, plant and equipment. Plant superintendents and managers are dissatisfied with their work. They claim they must unteach the major portion of what the boys learn in them.

Teaching Art Needed

Industry's own theory of learning on the job—training by foremen—is excellent. In actual practice, however, it, too, falls far short of its mark. That which the pedagogical instructors of the preceding period had been found to lack in knowledge of actual working conditions, foremen are well acquainted with. But they in turn are now being found to be without that ability which the school instructors had—the ability to pass what they know on to others.

The indispensability of training is obvious. In spite of the increasing automatism of the routine operations involved in running even the simplest form of modern factory machinery, the human factor still enters into the situation. More must be known than how to start and stop the machine. The operator must know how to care for it as well. Moreover, if he is to reach his

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Story of the Man Who Helped Bell

By P. J. KING, Boston, Mass.

THE history of great modern inventions contains no record in which the relations between inventor and assistant were both harmonious, and the timely complement to the other, more than that which existed between Alexander Bell and Thomas A. Watson in the years in which they labored for the successful construction of the telephone—the first electric instrument to carry the human voice.

The story of Bell the scientist is familiar to the general public and particularly to electricians, but the story of Watson, the other mechanic, is comparatively unknown. And yet, in a way, his career is the more fascinating study of the two. It is the story of a man who has lived; who has known the loss of wealth, experienced deeply the sorrows of life, and who still enjoyed life to a degree that is all too rare in these days of feverish specialization and concentration on wealth as a mark of greatness.

Thomas A. Watson was born in Salem, Mass., January 18, 1854. In early years he drifted from one job to another and finally decided to follow bookkeeping for future advancement. His eyes becoming weak he then turned to carpentering, but juggling nail kegs and carrying timbers was too strenuous for one of his physique. Searching for a chance to learn another trade he started in the machine shop of Charles Williams, 109 Court Street, Boston, on July 1, 1872; one of the small electrical job shops then in existence.

In early life there was no indication that Watson had any mechanical aptitude. As a boy he could not saw straight nor drive a nail without endangering his thumb. Before dropping bookkeeping and deciding on a trade he had done but little mechanical work.

After about two years his reputation as a rapid and accurate workman began to bear its most important fruit by bringing him into contact with men who had new electrical notions they wanted to have put in shape. The modern development of electrical machinery was just then beginning and many men were studying its possibilities. Williams' shop was a paradise for these men of vision and there were often two or three of them there feverishly superintending the construction of their machines, spurred on by visions of great wealth.

Watson Meets Bell

One day early in 1874 when Watson was at work on an apparatus for exploding submarine mines by electricity and wondering what was coming next, there came rushing out of the office door and through the shop to his workbench a tall, slender, quick-motioned young man with a pale face. It was Alexander Bell, a young professor in

Mechanic who made the telephone possible lived colorful life. When broke, late in life, became travelling player.

Boston University, whom he then saw for the first time.

Bell was bringing in two little instruments Watson had made without knowing what they were for or to whom they belonged. They had not been made in accordance with his instructions and he had impatiently broken down the rudimentary discipline of the shop by coming



THOMAS A. WATSON

directly to a workman to have them altered.

To make the work on his apparatus more intelligent, Bell explained them to him at once. They were a transmitter and receiver of his "harmonic telegraph," an invention of his which he expected would enable him to send six or eight telegraph messages over a single wire simultaneously without conflicting with one another so that one wire could do the work of six or eight.

The principle on which his telegraph worked was the same sympathetic vibration which sets a piano string or organ reed vibrating when its own note is sounded near it. Bell's invention using, instead of the air, an intermittent current of electricity to carry the vibrations over a wire, could set a string or reed in motion a hundred miles away and consequently could be used for conveying telegraph messages.

But in spite of Bell's hard study and months of Watson's experiments they couldn't make it work right. When they rigged it up in the attic of the shop, if they sent a message to their hypothetical Portland station in one corner of the room, Salem in another corner would get half of it and the other half would be scattered over the other New England stations about the attic. Their struggle to harmonize the harmonic telegraph and make the receivers more sympathetic in their response to the vibrations they sent were largely unavailing.

Bell Announces Goal

One evening when he had been working with him trying some new feature on the discouraging idea, he said, "Watson, I've another idea I haven't told you about, that I think will surprise you. If I can get a mechanism which will make a current of electricity vary in its intensity, as the air varies in density when a sound is passing through it, I can telegraph any sound, even the sound of speech!" He went on to describe a machine that he thought might do this.

They discussed the possibility of such a construction, but nothing was ever done about it for Thomas Landers and Gardiner Hubbard, the two men who financially and otherwise were supporting Bell in his experiments, were urging him to perfect his telegraph, assuring him he would then have money and time enough to play with his speech-by-telegraph vagary all he pleased.

But the harder they worked on the harmonic telegraph the worse it acted. Although Bell did not realize it at the time, it was lucky for him his apparatus did not work any better, for had it been an easy success the coming of the telephone would have been delayed and, perhaps, have found its way into the world through some other brain.

Bell not only had the first conception of the electric-speaking telephone but he was also to realize his great idea in practical form. On June 2, 1875, Bell and Watson were working in the shop trying to make the harmonic telegraph behave itself. He had found that one reason why its messages got mixed up in transmission was inaccuracy in tuning and receiving reeds to match those of the transmitters.

The final tuning up before they tried to send messages had to be done when the instruments were connected with the battery and line wires. When tuning a receiver reed, Bell had the habit of pressing it against his ear which enabled him to hear in the magnet the whine of the intermittent current coming from the distant transmitter and by gauging the length of the receiver reed, while holding it to his ear, he could make the two pitches conform.

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Cause



of
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United States Should Act

Enough evidence is spread upon the pages of this JOURNAL to warrant a Congressional investigation of the most anti-social of all industries, the spy business.

Such an investigation lies most properly within the province of the federal government.

It is doubtful if any country in the world boasts of a system of industrial espionage such as exists in the United States. Spying on unions with all its attendant diseases, its degraded, imbecilic operators, its deception and hypocrisy, its graft and fraud, its far-flung social effects must go back for a precedent to espionage under the Czars, or the Medicis. It is a blight on American decency.

The fact that it is probably financed, through devious routes, by the same powerful corporations, which, at times openly oppose unions, should not deter Congress from investigation. Decency demands it, but expediency may make it necessary.

The short-sighted business leaders who pay rogues—some of whom have jail records—to enter unions posing as friends and members—and to seek to disrupt these union organizations—by founding dual or outlaw organizations—are performing unpatriotic services. They are creating unrest. They are disintegrating constructive workman organizations, and preparing the ground for the rise of destructive workman organizations. These business leaders are in this wise more dangerous to the stability of the state than all the communists in America.

Several years ago a resolution was introduced into the U. S. Senate by Senator Wheeler demanding an investigation of the spy evil. We believe this resolution should be revived, and the social vipers preying upon the unions, be hunted to their lairs—to the corporation offices, if you please, who secretly direct them, and pay them.

Dying From Within

Like all moribund institutions capitalism is dying from within, not without. There is no radical party in any nation outside of Russia of sufficient strength to warrant an overturn. There certainly is no group of sufficient strength in the United States to make a dent in the established order. The idea, of course, is, that the men who profit most by the system, who have done most to defend it, and to make the rules which govern it, won't keep the rules, and play the game. We have only to refer to the Kreuger case which smells ranker and

ranker as the days wear on. Here is the greatest international swindle on record—a swindle that blasts the lives of millions in every country on the earth—a swindle perpetrated not by an adventurer but by an accepted leader of business. And who are the American banks which help perpetrate the swindle, and market \$250,000,000 of failing bonds in America? They are America's foremost, according to Max Winkler, financial authority.

Lee Higginson & Company.

Guaranty Company of New York.

National City Company.

Brown Brothers & Company.

Dillon, Read & Company.

Union Trust Company of Pittsburgh.

Past swindles have been perpetrated by outsiders who horn into the sacred circle—but now, the high priests of big business themselves indulge.

No, the defenders and makers of the system won't keep the rules. Capitalism presupposes strict honesty, and now honesty is superseded by ballyhoo, knavery, racketeering, short-changing, secret rebates and understandings and all that panoply of cheap substitutes for real character and integrity.

Gilded Vulture

"Fortune" wants us to believe that it is the peacock of the magazines. Fine plumage it has, it is true—colored plates, grandiose covers and proud trimmings; it sells for a dollar a number, and it is the avowed spokesman of big business,—“big” spelled B-I-G—of the bankers, and the banker-controlled corporations.

"Fortune", too, has its own smart air, and its own sumptuous gentility. It looks very much like a terra cotta bank building in the midst of the drab store fronts on Main Street. It is making money.

Recently it has been running a series of articles on housing. One of these, "The Wages of Labor", does not discuss wages. It is a cheap, crude, unscrupulous attempt to fasten the stigma of racketeering upon the building trades unions. Its method is the method of all facile, unscrupulous propagandists—of misplaced emphasis—of playing up the exception for the rule—of throwing the unusual in relief, and repressing the ordinary. It is not beneath the peacock of magazines to put cut-lines under photographs, which do not have anything to do with the photograph.

Here are some of the facts about building trades unions which "Fortune" did not even mention:

Increased efficiency and output per man in all trades.

Establishment of classes and schools for the improvement of craftsmanship.

Maintenance of high standards of workmanship.

Lessening of strikes, and a growing endeavor to improve national industrial relations.

Steady increase in hazards on the job.

Shrinkage of jobs due to mechanized devices.

Stabilization of employment, guaranteeing a steady stream of skilled workers.

A wage scale which does not keep pace with increased productivity.

Preservation of workmanly qualities, and standards which make possible the great buildings which adorn "Fortune's" pages.

Of course, "Fortune" is not interested in the social side

of unions. It was out to do a "loaded" job, tuned to the open-shop drive against wages and conditions.

No, "Fortune" is not the peacock of the magazines, but the vulture—a gilded vulture, to be sure, but predatory no less.

Where Has It Gone, Gentlemen?

Into some bottomless pit—into some insatiable hole in the sea—billions of dollars of credit—founded upon the people's money—has gone since last fall. Where has it gone, gentlemen? You men at the top, who are charged with the responsibility of operating the economic machine, what have you done with it?

First of all there was the National Credit Corporation. Then the Reconstruction Finance Corporation. Then the new Federal Reserve Policy. In all—calculating ten dollars of credit loaned upon each reserve dollar—possibly 32 billions of dollars of credit have been released—and business still dead on its feet.

This credit has been short-circuited somewhere, and the assumption is fair, until disproved, that it is short-circuited in the big banks themselves. The persons most responsible for the depression are most responsible for its disastrous continuance.

Credit continues tight. Men who wish to build have been refused funds by banks during the present month.

At the same time, while bankers refuse to pass on the credit values created for them by Congress, banker-controlled newspapers continue a barrage of indictment against Congress itself. They want Congress to quit. They still whimper and whine lies about Congress' interference with business—when, the truth is, the only benefits given business since 1929 have been given by Congress.

Since the big banks have got what they want out of Congress, they want Congress to quit before any unemployment relief is given.

Local Research Succeeding

It is little less than remarkable—the way our local unions have instituted research services during the last year. They have done this in the face of heart-breaking problems incident to unemployment. We consider this accomplishment evidence not only of the intelligence of the membership, but also of the vitality of the idea. Modern industry pretty much moves on research. The micrometer, the logarithm table, the graph, and conference table are symbols of the new industrial order. We can say this, and still fully understand that nothing can take the place of the economic power of organization.

Our local unions have made better progress in the establishment of local research than we had expected. The idea is new. It demands—for full success—the co-operation of every member of the organization—not mechanical co-operation either, but the whole-souled, intelligent co-operation of each member because that member is "sold" on the idea of making his organization the equal of any other branch in the electrical industry in industrial knowledge. This organization is getting to the point where it knows more about certain phases of the electrical industry than any other group.

The old adage—knowledge is power—applies here with new force. This new power depends upon local research.

Because—for full success—every member must co-operate, it is natural that the plan can not meet complete success at first. Some members have not yet grasped the aim of this work. They see in it only a lot of red-tape, and unnecessary trouble, and they refuse to do their bit. We believe these will become fewer.

Drift to Dictatorship

In November, 1931, we published an article entitled "Is There Drift Toward Dictatorship?" Certain tendencies were therein cited, and the Wall Street Journal quoted to stress the trend. Now as a matter of record we set down:

The statement of Senator Reed, of Pennsylvania, friend of Mellon, in the Senate:

"If this country ever needed a Mussolini, it needs one now. I am not proposing to make Mr. Hoover our Mussolini, but if we are to get economies made, they must be made by someone who has the power to make the order and stand by it."

The statement of the President of the United States:

"The battle to set our economic machine in motion in this emergency takes new forms and requires new tactics from time to time."

"We used such emergency powers to win the war; we can use them to fight the depression, the misery and suffering from which are equally great."

The statement of an investment broker group in New York:

"Strong personal leadership must appear in the field of government and politics able to express and execute the demands of the citizenry for a national economic policy and sufficiently courageous to strive for the elimination of corruption in public office which has undermined public and private morality."

Here appears to be unanimity of opinion.

Loyalty

Mines close down in Arizona. Men are thrown out of work. Being thrown out of work there means, men take their few belongings, loading mother and the kids into the old car, and migrating down the desert road—to face a still more hostile world. Yet the members of the International Brotherhood of Electrical Workers thus affected, sent word to this office—"We want, above all else, to protect our standing, and preserve our membership in the union."

Yes, that is loyalty. It is loyalty founded upon full, first-hand knowledge of the brutal facts in this best of all possible economic systems. The salient characteristic of our business system is insecurity. The only present stabilizer of the situation for the worker is his union. Men who feel insecurity the most appreciate the union the most. They appreciate it, and they are willing to make sacrifices for it.

It might be good for every member of the organization to close his eyes for a moment and visualize that little caravan of out-of-work men moving over the Arizona desert—without jobs, without funds, without clear destination—still saying, "the union is our hope."



WOMAN'S WORK



LOW COST MEALS WITH "APPETITE APPEAL"

By SALLY LUNN

EVER get discouraged with the dull round of housekeeping, marketing, cooking? I think everyone does, particularly when money is short and we can't afford as free a choice among foods as usual, and must stick to the inexpensive ones. Every woman needs a stimulating influence once in a while to get her out of the rut. Going out to a meal in a nice restaurant where perfect foods are beautifully served may have the effect of making meals at home more interesting for quite a time as we use the suggestions we picked up. Or, some article of food that is particularly nice, such as steak or fried chicken, may stimulate us to make the whole meal especially good. New china or glassware makes us want to serve pretty things. . . . but let's not go on talking about new things, when we can't afford any of them. Let's go back to the old, ordinary everyday things and make them new and interesting.

Isn't it fun when we can make things more beautiful, more delicious, more pleasurable at home and actually not spend a cent extra in doing it? The woman who can do that may well be proud of herself. The effect on the whole family is cheering. We don't want to go around with grouches just because we are hard up, you know! An enjoyable meal is a gloom-lightener extraordinary. And the stimulating effect on yourself is even greater for you have the added joy of knowing you produced something delicious instead of something ordinary.

A great deal of the attractiveness of food is in the serving. We can't buy new linens, dishes, silver and glass, but we can make the best of what we have. Pretend you are giving a party and use the best table cloth just for the family! Get out the dishes you have put away because you thought them too fine for everyday use, shine them up and put them on the table. Think about which colors will go well together, and make

the table as pretty as you can. Cut some flowers from the garden, or put candles on the table, if you have some. . . you can decorate without spending a cent! Most of us, I'm sure, think there are no people so nice as those of our own family, so surely we should treat them as well as we do "company."

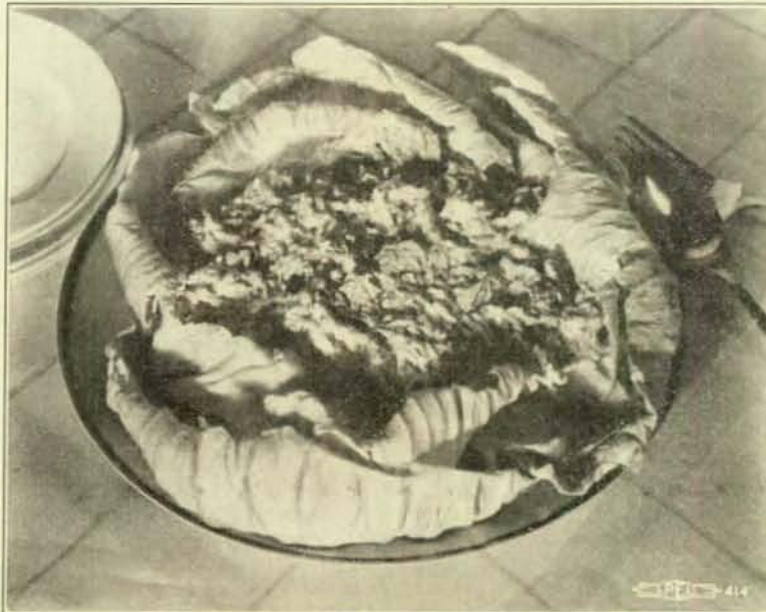
adds enormously. Children's names, written on cookies or cup cakes with icing, make ordinary foods into best sellers.

There are many little herbs that make attractive garnishes and are also valuable as seasonings—for we want our food to taste as interesting as it looks, don't we? Among these plants are parsley, chives, thyme, mint, tarragon, water cress. Old country people grow these in their kitchen gardens. If you haven't a place for a garden outside, you may have one inside your kitchen, if you have a sunny window. Little pots, hanging baskets, or a window box may be used to make a kitchen window garden—that is quite ornamental, as well as very useful. It is not difficult to get most of these plants to grow inside, says W. R. Beattie, the garden specialist of the U. S. Bureau of Plant Industry. Parsley, he says, is one of the easiest. One or two plants will furnish you with a lot of sprigs, as it grows rapidly after being cut. Parsley plants may be bought in the big market, or from market gardens, or raised from seed, though this is a slower method.

Surely you know someone who has a mint bed! Mint is so nice in the summer time, with iced tea, and other cold drinks; and mint sauce with lamb

roast is the touch that glorifies. Given sunshine and water, mint will flourish almost anywhere. It grows and spreads all over a flower pot very rapidly.

"Water cress," according to Mr. Beattie, "can be grown indoors if the right conditions are provided. Most people think that water cress can be grown only in shallow water. As a matter of fact, it will grow fairly well on soil, provided the surface is kept reasonably moist and it has some lime in the soil to keep it alkaline. For this reason water cress should not be grown in the same box with parsley, mint, and other plants which require a soil that is neutral or



CABBAGE SALAD

- | | |
|-----------------------------------|--------------------------------|
| 1½ teaspoons salt. | 3 cups shredded green cabbage. |
| 1 teaspoon sugar. | ½ pint double cream. |
| Scraped onion. | 4 tablespoons lemon juice. |
| 3 tablespoons ground horseradish. | 12 drops tabasco sauce. |

Put the shredded cabbage in a cold place to become crisp. Whip the cream. Evaporated milk may be substituted for the cream with good results if it is scalded for five minutes in the can, chilled thoroughly, and whipped in a bowl inserted in another bowl containing ice and salt. Add the seasonings and combine with the cabbage just before serving. If allowed to stand after mixing, the juices are drawn from the cabbage and the mixture becomes too thin. Serve the salad very cold. This is very attractive served in a hollowed-out head of red or curly green cabbage, as shown in the picture.

And now to make the foods themselves more zestful!

In the first place, let's consider garnishes. The bit of parsley, that glows in lacy green amongst the mundane meat balls, adds appetite appeal. A dot of red jelly on creamy rice pudding sparkles like a jewel. Radish roses somehow make the cold roast beef look more interesting. Cafeteria managers know the value of garnishes. The most attractive food is always selected first. Sometime when you are making cookies for the children, make some fancy and some plain. See which disappear first! Even so simple a thing as a big raisin in the center



BEEF LOAF

A splendid hot weather dish because it is delicious when sliced cold to serve with salad.

2 pounds lean beef. 1 cup fine, dry bread crumbs.
1 cup diced salt pork (about ½ pound). 2 teaspoons salt.
4 tablespoons flour. ¼ teaspoon pepper.
1½ cups milk. 4 or 5 dashes tabasco sauce (or a speck of red pepper).
1 cup chopped celery.
¼ cup chopped onion.

Put the meat through a grinder. Fry the diced salt pork till light brown and crisp and remove the pieces from the pan. Make a sauce of the flour, milk, and 3 tablespoons of the pork drippings. Cook the celery, parsley, and onion for a few minutes in the rest of the pork drippings, and add to this the bread crumbs and seasonings. Combine all the ingredients and use the hands to mix thoroughly. The mixture will have a sticky consistency. Lay a piece of parchment paper on a rack in an open roasting pan. Mold the meat loaf on the paper with the hands. Bake the loaf in a moderate oven (350° F) for 1½ hours. Do not cover the pan and do not add water. Much better results are obtained by making the meat loaf in this way. Remove the meat loaf from the paper and serve hot, or chill it and serve in thin slices with watercress garnish.

very slightly acid, and for that reason would be injured by applications of lime.

"I simply buy a small bunch of water cress on the market," Mr. Beattie continues, "and stand it in a dish in a little water to which a pinch of lime has been added. In few days the roots begin to form, then I plant these little sprouts of water cress in a special window box and water them with water to which a teaspoon of hydrated lime has been added to each gallon of water, or if you do not want to go to the trouble of adding lime to the water just sprinkle a little, a very little, hydrated lime, over the surface of the soil in which the water cress is growing about once in every three or four weeks, then use the ordinary water as it comes from the faucet for watering the plants."

Other plants suggested for the kitchen window garden are sweet basil, chives, and thyme. The leaves of chives when chopped provide a delicate onion flavor as well as a bit of color for some meat and vegetable dishes. If you cannot find any plants for growing chives you can plant an onion in a little cup or jar of water just big enough to hold the onion bulb with

the root end above and touching the water. With the jar in the sun, the onion shoots will grow rapidly for some time.

Our good friends at the U. S. Bureau of Home Economics have been going into the question of seasonings lately in connection with their low-cost meal suggestions. Of course, we all know that the dish that is seasoned piquantly is more attractive than the one that is not, but often we don't know how, or don't take the trouble, to add the seasonings.

The recipe specialist of the Bureau of Home Economics, Mrs. Fanny Walker Yeatman, has some suggestions about this. Says she: "One of the best ways to give flavor to soups and stews is to brown, in fat, the meat and vegetables that go into them. Also use crisped bits of salt pork or bacon, added at the last minute, instead of putting them in 'as is' at the beginning. A stew made this way will taste quite different from the stew made of diced fresh vegetables, or from meat and vegetables, simply cooked in water." The practical housekeeper will save time and dishwashing by first crisping the bits of salt pork in the skillet, removing the pork and setting it aside, using the fat in the skillet to brown the other meat and vegetables; then adding water and cooking slowly till done, when the salt pork may be sprinkled, hot and crisp, over the top of the stew. Try it!

Mrs. Yeatman suggests saving all celery leaves and hanging them in a paper bag to dry, to be used as seasonings for stuffings. Stuffing, you know, is a very good way to make the meat go farther! Celery seed serves the same purpose and is also just the right thing for flavoring potato salad and cold slaw. Cut mint leaves or water cress into stuffing for roast lamb and you can flavor the cheaper cuts deliciously. Chopped pars-



JELLIED VEGETABLE SALAD

½ cup lemon jelly powder. 1 cup cooked green peas, fresh or canned.
2 cups boiling water. 1 No. 1 can red kidney beans.
½ cup diced cooked turnips. ½ cup chopped celery. ½ teaspoon salt.

Dissolve the jelly powder in the boiling water and set aside to chill. When the mixture begins to stiffen, add remaining ingredients. Mix well. Turn into small individual wet molds, or a single mold, and chill. Remove to a bed of lettuce or endive. Garnish with mayonnaise dressing.

If prepared lemon flavored gelatin is not available, make a pint of lemon jelly by mixing 1 tablespoon of plain gelatin with a half cup of cold water, then dissolving in 1½ cups of boiling water. When cool, add 2 tablespoons lemon juice. In very warm weather, add an additional half-tablespoon of gelatin.

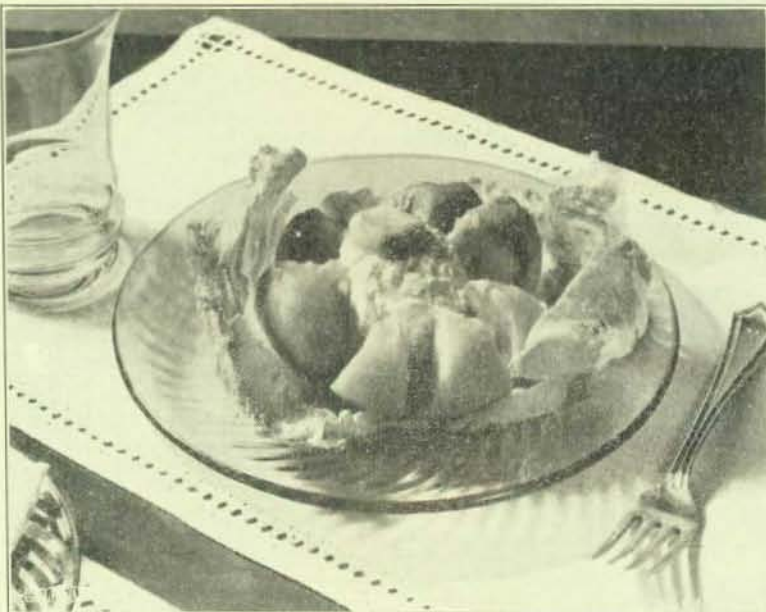
ley in hot butter poured over boiled potatoes has "appetite appeal." Sprinkle a tiny bit of mace in green beans—this is a German trick—it adds unusual flavor. Did you ever try a "suspicion" of nutmeg in chicken soup? A dash of paprika over a dish of creamed meat or vegetables is enticingly colorful.

Here's an idea of mine for flavoring left-over meat that will appeal to the family particularly if you serve the meat as hot "barbecue" sandwiches. It isn't really barbecue, of course, but it tastes like barbecue. Chop onion fine and put in skillet to fry. Grind cold beef, pork, or lamb and put in the skillet. When the meat is sizzling and browning and when the onion has cooked, add catsup, horse-radish, and a little pepper.

The pictures and recipes on this page are all by courtesy of the U. S. Bureau of Home Economics. They are especially good for summer time and are all inexpensive and easy to prepare. I'm sure you'll find them pleasing as well as nourishing.

I live on the sunny side of the street; shady folks live on the other. I have always preferred the sunshine and have tried to put other people there, if only for an hour or two at a time.—Marshall P. Wilder.

Success or failure in business is caused more by mental attitude even than by mental capacities.—Walter Dill Scott.



Photographs by Courtesy U. S. Bureau of Home Economics

TOMATO SALAD WITH COTTAGE CHEESE

A very simple but delicious salad that is a delight to the eye if daintily served. Scald and peel firm, small tomatoes, and cut down to form petals as shown and sprinkle with salt and pepper. Pile seasoned and creamed cottage cheese in the center, and place a spoonful of mayonnaise on the top. This should be served on crisp lettuce, very cold.

CONSTRUCTIVE HINTS

AIR CIRCUIT BREAKERS

General

The air circuit breaker is used to protect machines of other electrical apparatus from abnormal circuit conditions such as short circuit, overcurrent, undercurrent, reverse current, undervoltage, overvoltage, unbalanced voltage in three-wire systems, phase reversal, etc. It can be self-contained or used in conjunction with other devices such as relays, speed-limit devices, limit or push-button switches, etc., to give either instantaneous or time-limit tripping.

When air circuit breakers are used in conjunction with other devices, tripping is accomplished by means of a shunt trip or undervoltage device, where the coil will be energized or deenergized by the closing or opening of the auxiliary contacts.

These breakers may be manually or electrically operated.

Features of Air Circuit Breakers

1. Ample conducting parts limit temperature rise of breaker to 30 deg. C. or less at rated current.
2. Double-pole breakers and some triple-pole have each pole operated by a separate handle, while other triple-pole breakers have all poles operated by a single handle, the latter including the "trip free" feature.
3. Auxiliary switches can be applied, without alteration, to breakers for ringing bells, lighting lamps, tripping other breakers, etc.
4. Undervoltage devices and shunt trip attachments can be applied to breakers after installation without any change in the circuit breaker.
5. The breakers close easily, and are all held closed by a positive latch.
6. Breakers trip easily and rapidly without the use of auxiliary accelerating devices.
7. The manual tripping device is insulated from the live parts of the circuit breaker.
8. Carbon arcing tips and brushes are given a sliding motion on each other under pressure in closing, thus insuring good contact, and cleaning the contact area at each operation.
9. The main brush contact is effectively protected from burning.
10. A special form of laminated brush, which gives each lamination an end-on contact with the contact blocks, allows a heavy pressure to be placed upon and uniformly distributed over the entire contact surface. There is no tendency to force any part of the brush out of contact. This results in maximum efficiency.
11. Direct- and alternating-current breakers are similar in appearance and construction, except that the alternating-current breakers have laminated armature and pole-piece.
12. Each circuit breaker is calibrated individually.
13. The calibration is marked with white numerals on a black background.
14. Calibration range extends from approximately 75 per cent to 150 per cent or more of the rated ampere capacity.
15. All air circuit breakers comply with the national electric code, the specifications of the A. I. E. E., and the adopted standards

of the National Electrical Manufacturers' Association.

16. All parts of circuit breakers which may require replacement are easily renewable.

17. Circuit breakers have been submitted to exhaustive tests with regard to their interrupting capacity and their mechanical construction. In all cases they have proved eminently satisfactory.

18. Breakers can be transferred from shipping template to panel without disturbing the adjustment.

19. The main brush always breaks contact before the burning tip, while the carbon contacts open after the burning tip.

20. For air circuit breakers 1,500 amperes and above, laminated studs are used, giving best contact, least heating and a simple method of fastening connection bars.

WATTHOUR METERS

Portable Test Meters

The portable test meter is recognized as the best and most efficient way of testing service meters. Its use obviates several causes of inaccuracies, such as errors because of fluctuating voltage, load, personal errors, etc. The test meter combines several ratings in one standard covering a range from light load to full load and makes possible rapid testing, because no time is lost in changing standards.

They are equipped with an electrical element developed expressly for this service, together with other refinements intended to give the highest degree of accuracy attainable.

All test meters are carefully calibrated at the factory and a certificate of test prepared and sent out with each meter. A calibration table in the form of a card also accompanies each meter. From the table, the per cent accuracy of any service meter can be quickly determined by comparing disk revolutions.

The electrical element is essentially the same as that used in the Type 1-14 meter with the accompanying excellent performance characteristics and high torque. The full-load, light-load, and power-factor adjustments are also the same, the magnets being of the temperature-compensated type. The lower bearing consists of carefully selected sapphire jewels together with the standard steel pivot.

A choice of two ratings is afforded. The IB-5 is furnished with series rated one and 10 amperes, making this meter suitable for testing five-, 10-, and 15- ampere meters on both heavy and light loads. This makes a small, light-weight meter for routine testing. The IB-6 is furnished with series coils rated 1, 5, 10, 50, and 100 amperes, suitable for testing meters of any rating up to 150 amperes. It is larger and somewhat heavier than the Type IB-5 and has the additional feature of a rotary switch for instantly changing the connection from one rating to another, together with a pointer resetting device for instantly setting the pointer on zero. The resetting device is not standard on the IB-5 but can be furnished if desired.

Either type can be furnished in single or double-voltage rating. The latter includes a special switch for changing the voltage coil connection. External multipliers are furnished, when three or more voltage ratings are specified.

Types IB-7 and IB-8

An electrical element free from temperature error under all operating conditions, and with exceptional performance on varying voltage, frequency, power-factor, and load characterizes these two meters. They are contained in a cast-metal case of aluminum alloy. The top is of moulded bakelite (black) fitted with a cork gasket. Four corner screws hold and seal the meter in the case, making it thoroughly dust and moisture proof. An exterior finish of black crystallizing lacquer with metal parts nicked gives it an attractive appearance. A pointer resetting device is standard on both types. The full-load, light-load, and power-factor adjustments are the same as in the I-14 meter.

The IB-7 is furnished with three ratings, 1, 5, and 20, amperes, suitable for testing 5-, 10-, 15-, and 25- ampere meters. The IB-8 is furnished in 1, 5, 10, 50, and 100 ampere ratings the same as the IB-6. The IB-8 also has a drum switch for quickly changing the series coil connections. Double-voltage ratings include a special potential switch for changing connections.

DEMAND METERS

Principle of Operation

The operating of the demand meter is based on the use of a contact device in a watthour meter with which each demand meter must be coupled. (See also contact device. The opening and closing of the contact, through the operation of the watthour meter, opens and closes the circuit to the demand meter.

In the demand meter is an electric magnet which responds to these impulses, advancing the indicating or recording mechanism of that meter one stop for each impulse. The rate at which the contacts or impulses are set up is determined by the speed of the watthour meter, which, in turn, is dependent on the load. The number of impulses received during any given interval, therefore, is a measure of the demand during that period. The primary function of the clock or timing element, a necessary part of all demand meters, is to set off definite intervals during which the demand is integrated and averaged by the meter. In addition, in graphic meters, the clock also drives the chart.

The effect is the same as though the demand meter registering mechanism were mechanically connected and driven by the watthour meter. The electrical coupling makes a much more flexible arrangement by means of contacts and carries with it many advantages not possible where the two meters are built as a unit except in the case of the demand register. Some of these advantages are as follows:

1. The demand meter can be coupled with watthour meters of any rating or make. Only the addition of a contact device in the watthour meter is necessary. This makes a flexible arrangement and does not necessitate the purchase of new watthour meters where these are already installed.
2. Repairs or adjustments to one meter can be carried on without disturbing the other.
3. The only burden imposed on the watthour meter is that of the small contact de-

(Continued on page 328)



RADIO



CATHODE RAY TUBES OPEN MANY NEW FIELDS

By AUSTIN C. LESCARBOURA, Member A. I. E. E., Member I. R. E.

History of Radio Tubes May Be Repeated With Ingenious Bulbs Now Made Available For First Time To Average Experimenter

WHILE prime interest has been centering about the possibilities and probabilities of television, an offshoot now looms up which, as in the instance of radio's vacuum tube, may find many applications far beyond the original intent. The announcement of a line of simple, practical, inexpensive cathode ray tubes in various types and sizes, throws open an entirely new electrical technique the potentialities of which are too far-reaching to be safely predicted at this time.

Eventually, the cathode ray tube will be as common in our industrial, commercial and home life as the radio tube is today. But at this early date in its history it is necessary to describe the meaning of the cathode ray tube, its possible uses, and the commercial opportunities which it promises for the future.

First of all, the cathode ray tube is one of the oldest of all electronic tubes. For several decades past, however, it has received little attention because such associated equipment as might be required for its proper application did not exist. During the last few years much work has been done towards the development of the cathode ray tube, but the offerings have been so intricate, delicate and costly as to limit the use of the device to the leading research laboratories. Experimenters, who not only constitute the profitable market for any scientific device but who also can be counted upon for the practical development and application of any new technique, as we have seen from early vacuum tube history, have heretofore seen little of the cathode ray tube because of its high cost and rarity.

Funnel-Shaped With Thick Neck

The cathode ray tube is usually in the form of a funnel-shaped glass tube with a long, thick neck. The flattened end of the funnel is painted on the inside with chemical coating which glows under the impact of the electronic stream. At the base of the neck is a filament or cathode, which, when heated, produces the electrons or minute particles of charged matter. An anode plate with a tiny center hole is so charged as to attract the electrons. The electrons, traveling at tremendous speed, strike the plate and those in line with the tiny hole pass through in the form of a fine electronic jet or stream, striking the chemical coating at the far end. The impact is manifested by a small luminous spot.

So far, the electronic stream is stationary, and the tube has no real practical value. However, if a permanent magnet or an electromagnet is brought near the glass bulb, the electronic stream is immediately deflected. Indeed, the stream may be aimed

in any direction to reach any part of the flattened end, by manipulating the magnetic field. Again, if the electronic stream is made to pass between flat plates placed inside the neck of the tube, relatively minute electrical charges on the plates will cause the deflection of the electronic stream. Varying the electrical charges provides precise control of the luminous dot at the flattened end. If two sets of deflecting plates are inserted in the glass neck, positioned at right angles to each other, then, with the proper electrical charges on each set of plates, the electronic stream can be deflected horizontally and vertically, as well as at any angle and even in curves, by the given electrical charges.

So here we have a device which translates electrical values into visual terms, just as the usual radio tube translates infinitesimal electrical values into powerful electrical values which, by means of mechanical devices such as loud-speaker or televisor, may be converted into sound or visual values. The cathode ray tube permits one to "see" electrical variations, and to "see" two circuits at a time, in the form of queer geometrical patterns woven by the luminous spot at the flattened end. Due to the persistence of human vision—the eye retains an image for an appreciable fraction of a second, the luminous spot of light becomes a line, circle, figure 8 and so on due to the interaction of the two sets of charged deflecting plates. If a revolving mirror is employed with which to view the patterns, the wave forms are obtained for the study of intricate alternating current and modulated currents for the study of the most involved electrical technique including the study of the human voice, various instruments, delicate differences in tone quality, the characteristics of radio loud-speakers, and so on.

The cathode ray tube may be modulated or controlled either by means of enclosed deflected plates, as already explained, or by means of wire coils placed about the glass neck. Both methods are popular.

By varying the current supply to the cathode or filament, or again a modulating electron, the intensity of the luminous dot may be varied.

Scanning Results

It will be noted that with a variable luminous intensity, a means of focusing the dot for the desired degree of sharpness, a means of swinging the dot in the horizontal plane and again swinging it in the vertical plane, we have here the necessary elements for an electrical scanning system suitable for television. In theory, electrical scanning is the ideal means, as contrasted with the neon lamp and motor-driven scanning disc of the usual mechanical scanning system. However, in practical terms electrical scanning does not work out quite so easily. The horizontal and the vertical movements must be obtained by local oscillators, which

in turn are controlled by components contained in the signal carrier wave. The oscillators are quite elaborate and fussy. A televisor of the cathode ray kind requires high voltages for its operation, much equipment and a high cost. Hence while admitting that the electrical scanning technique is the ultimate choice, it is far from realization at this time, except in laboratory demonstrations where expenses mean little or nothing so long as the principle can be shown. Television authorities are agreed that so long as television programs are transmitted by means of scanning systems of less than 100 lines, the mechanical scanning technique is simpler, cheaper and more desirable. Beyond 100 lines, however, mechanical scanning becomes too cumbersome and costly to compete with the electrical scanning technique with its complete freedom from moving parts.

In the meantime, however, there are many uses for the cathode ray tubes of particular interest to the electrical worker. The simpler types with a single set of deflecting plates, for instance, can be employed for voltmeter and ammeter purposes. Without moving parts, these small cathode ray tubes, contained in the same sized envelope as the usual -45 type power tube, can be used for voltage and amperage measurements, provided the big end is graduated and calibrated. These tubes may also be employed as resonance indicators for radio transmitting circuits.

The larger cathode ray tubes either with deflection plates or with silver anode and electromagnetic control, may be employed for the simultaneous study of two co-ordinated circuits. If a simple four-sided revolving mirror is employed, with a variable speed motor, the luminous pattern may be converted into a sine wave form for the study of alternating and pulsating currents, as well as intricate modulation such as voice current, musical instruments, rare differences in timbre and tone quality, and so on.

Just as the original radio tube of Lee DeForest found wide popularity among experimenters, not only giving birth to a perfected radio telegraphy and telephony but in time to talking pictures, electrical phonographs, light-sensitive devices and many industrial applications, so the cathode ray tube is certain to have far-reaching uses in many directions. The foregoing is only by way of a general introduction to the subject. In the near future the writer will go into details as to the actual functioning of this remarkable device.

Give me the money that has been spent in war, and I will clothe every man, woman and child in an attire of which kings and queens would be proud. I will build a schoolhouse in every valley over the whole earth. I will crown every hillside with a place of worship consecrated to the gospel of peace.—Charles Sumner.

EVERYDAY SCIENCE

AIRPORT MARKER LIGHTS

Marker lights are used with clear globes to indicate the shape and outline of the landing area. These units are also used with green globes to indicate the most favorable points of approach to the field, or with red globes to indicate obstructions such as radio towers, poles, power lines, trees or buildings which are on or near the field.

Construction

Marker lights are made in two types, namely, the locking type and screw type. Both units are furnished with cast aluminum bodies in which drain holes are provided to prevent water caused by condensation entering the conduit. Both types are tapped for $\frac{3}{4}$ -inch pipe for multiple service and for $1\frac{1}{4}$ -inch pipe for series service.

The body of the screw unit is threaded and equipped with a rubber gasket which provides a water-proof seal when the globe is in place. The globe of the locking type unit is held firmly between two felt gaskets, one on the body and the other on the globe holding the ring. The locking type marker unit may be supplied with or without globe protecting guards. These guards are desirable, however, as they prevent unauthorized persons tampering with the unit. A special socket wrench is necessary to remove the guards.

Airport and Airway Beacon

The purpose of the airport beacon is to enable the approaching pilot to determine quickly the location of the field. This beacon rotates so that an intense beam of light sweeps the horizon six times every minute; it is identical with the standard rotating beacon as used by the Department of Commerce on the National Airways. The beacon should be mounted on top of a hangar or upon a steel tower so that the beam will clear surrounding obstructions.

Construction

The cast-aluminum barrel is 24 inches in diameter and contains a high-grade, silvered-glass, parabolic mirror. The door frame which holds the 25-degree, upward-deflecting rounded is hinged to the barrel and is held securely in place by means of clamps. This design utilizes a small chromium-plated mirror inside the front-door glass to reflect light back into the large mirror. In effect, it cuts off objectionable stray light and takes the place of louvers formerly used. Zenith panels are provided in the top and sides of the barrel to assist the pilot in locating the beacon beam. The trunnion arms which hold the barrel are arranged to rotate upon ball bearings in the base; adjustment is provided so that the barrel may be set properly with respect to the horizon and locked in position. In the base are a motor, a worm-and-gear mechanism, and a code-flashing device that can be used to control on-course lights or an auxiliary beacon. The flashing device utilizes mercury-tube switches instead of magnetic contractors as were formerly employed. The main shaft is equipped with collector rings to carry the current to the lamp. Bronze covers that enclose the sides of the base may be removed for inspection of the mechanism.

Automatic Lamp Changer

The standard equipment includes an automatic lamp changer which places a second lamp in focus as soon as the first lamp fails. However, the beacon may be purchased without this device and in such case a single mogul screw-base socket is supplied.

Two types of lamp changers are available: one for 1000-watt, 115-volt lamps or one for 1000-watt, 30-volt lamps.

Incandescent Lamps

When the beacon is used on alternating current circuits, a 1000-watt, 30-volt lamp is recommended, using the transformer listed. The 1000-watt, 115-volt lamp can be used on either a D. C. or A. C. circuit.

Floodlighting Projectors

Briefly, a floodlighting projector consists of a reflector, a socket mounted in a weatherproof casing and arranged to take a focus-type Mazda lamp.

The socket can be moved forward or backward to focus the lamp; when the proper focus is obtained, the socket can be locked in position. All parts are readily accessible, the units are weatherproof, and can be mounted either outdoors or indoors.

It is possible, economically and effectively, to illuminate surfaces where lighting by the ordinary method of employing several lamps and reflectors is impractical.

Following are a few of the different uses of floodlighting:

Floodlighting Public Buildings, Monuments, Fountains, Etc.

Every municipality has some notable example of architecture, statue, square, or historical place in which the community has considerable pride. The floodlighting projector makes it possible to bring out the attractive structure even more prominently at night than in the daylight.

Floodlighting Billboards and Signs

The floodlighting projectors for billboard lighting can be installed in practically any convenient place; eliminating complicated wiring, increasing the working hours of the billboard, and enhancing the advertising value through the contrast of the bright surface against the dark background at night.

Floodlighting in Construction Work

Contractors are frequently called upon to do construction work at night—sometimes it is an emergency repair job—at other times, night work is necessary to complete a job on time.

Floodlighting for Protection

Important railroad bridges, docks, power stations, aqueducts, reservoirs, etc., that are nightly guarded against mischief-makers and prowlers are much more completely protected when floodlighting projectors are used.

Floodlighting for Winter Sports

For lighting winter carnivals, toboggan slides, skating ponds, hockey, curling, and skating rinks, the floodlighting projector is

particularly useful, because it provides powerful light and obviates the necessity of poles which act as dangerous obstructions.

Floodlighting for Pageants

The floodlighting projector is inherently adapted for the lighting of pageants, carnivals, outdoor expositions, displays during merchants week, etc.

Floodlighting Athletic Grounds

Floodlights, mounted on poles adjacent to the grounds or on the tops of the stands and buildings of the grounds, have made it possible for athletes to practice at night, and in many cases to hold events which could not otherwise take place.

CHROMILITE LANDING FIELD PROJECTORS

Application

To provide adequate illumination for the landing of planes at night it is necessary to project a sheet of light of uniform intensity and limited vertical height over the usable portion of the landing field. Chromilite landing field projector has been designed to provide safe, flexible and efficient illumination for landing areas. The units may be installed in either centralized or distributed groups. In the first method the projectors are arranged to direct the beams radially over the landing area while in the second method they are spaced at intervals up to 250 feet along the side of the field.

Construction

The body of the chromilite landing field projector is rust resisting sheet steel with electrically welded seams.

The door or lens frame is cast aluminum and is arranged to open through an angle of 120 degrees at which point it engages a latch which holds it open and permits cleaning and relamping without interference.

The lens, mounted in the door frame, is securely supported between gaskets, which protect it against breakage and provide weather protection. The lens is a flat, heat-resisting glass, 24 inches in diameter, which will not break or crack when subjected to the most severe weather conditions. A lens with either a narrow, medium or wide spread can be provided.

The parabolic, metallic reflector is chromium-plated and is 24 inches in diameter, with narrow beam divergence and an extremely long focal length. The chromilite reflector is not subject to any form of corrosion or breakage and retains its initial efficiency throughout the life of the projector. When desired silvered glass reflector is a precision mirror of ground glass having a high initial efficiency.

The focusing mechanism provides a flexible three-way adjustment and permits accurate positioning of the lamp filament. The external focusing screw is protected against tampering by a guard attached to the door.

The socket is of the prong base, metallic type, insulated with mineral composition to withstand the high temperature prevalent with large lamps used in this type of unit.

The system of louvers mounted on the door frame intercepts all rays of direct

(Continued on page 328)

FOLLY'S MILL

Drawn especially for Electrical Workers Journal by Harrie S. Goodwin



ON EVERY JOB

There's a Laugh & Two

We had to make up this page early this month, we regret to say, and that means that a lot of masterpieces will have to wait till another month. Shorter—and funnier—boys!

Must Have Been a Lineman

Mrs. Hotsy Totsy (to new maid): "And don't forget, Gertrude, we shall want a new electric griller for the kitchen. You know what a griller is, I suppose?"

Gertrude: "'Course I do. It's a big hairy monkey and if you want one of those in the kitchen I'm leaving."

Put On Your Shirt!

Jim: "Television will soon be here."

Tim: "And what a nuisance it will be to have to shave before you answer the telephone!"

R. B. BAKER,
Local Union No. 474.

Relatives

We heard a good story from Chattanooga lately. It seems Brother E. E. Crosby was milking a cow, when a bull tore across the meadow toward him. Crosby did not stir but continued with the milking. Observers, who had run to safety, saw, to their amazement, that the bull stopped dead still within a few yards of the electrician, turned around, and walked sadly away.

"Weren't you afraid?" asked everyone.

"Certainly not," said Brother Crosby. "I happened to know this cow is his mother-in-law."

(Guess the Brother is kidding us—who's got any buried mazuma?)

Herb Says

Get out that sock,
Start playing square—
Give that mazuma
A chance for air.

Lift that rug,
And get it out;
Give it a chance
To move about.

Dust them off
Before they choke,
Give them frogskins
A chance to croak.

If you don't, you'll
Cramp their style.
They have been
There quite a while.

Get those shekles
To going strong,
They've been idle
Away too long.

You just might
As well have rocks
If you're gonna keep
'Em in your socks.

THE NEWS BOY,
Local Union No. 545.

(You're right, Walt, and let's do it.)

A Theorem

If I could be the President,
Of this great U. S. A.
There'd be work for each resident,
With full time ev'ry day.

I would start the tradesmen working,
On buildings big and grand;
Use this idle labor lurking,
Unemployed o'er the land.

I'd spend ten million ev'ry day,
To start a great big BOOM;
Let willing workers earn their pay,
'Twould drive away the gloom.

Then the BOOM would be reflected,
And spread the whole world through;
And the seeker now rejected,
Would find a job to do.

WALTER H. HENDRICK,
Local Union No. 7.

Springfield, Mass.

Here's a verse we picked up from the
Plumbing and Heating Industries Bureau
and we wrote an addition to it to show them
we can do our part.

"Now's the Time to Start to Build"

(With Apologies to Eddie Cantor)

Bath tubs are cheaper, faucets are cheaper,
Now's the time to start to build.
Labor is active, terms are attractive,
Now's the time to start to build.
There will come a time when prices will be
higher,
Now's the time to open up and be a buyer,
And if you are craving, a place to make a
saving,
Now's the time to start to build.

Outlets are cheaper, some day they'll be
steeper—
Now's the time to modernize!
Wake up the neighbors, save wife her labors,
Call the fellow who electrifies.
Beautiful lighting will lighten the gloom,
Get wiring prices, they're cheaper, room by
room.
Use all the conveniences of modern geniuses,
Call the fellow who electrifies.

"Believe It or Not"

We glean this from the Chicago Dental Society Bulletin: "Some time ago a dentist in the Forty-Mile section, not far from Eagle, Alaska, died after pulling every tooth in the head of a man named Johnson. No other dentist was near, so Johnson returned to his trapping camp with bare gums. There he found a bear had broken into his cache and eaten his food. Johnson got his rifle, trailed the bear and shot him. Then, having once been a metalworker, he got out some old tools and fashioned a dental plate into which he set the best of the bear's teeth. The set of false teeth clicked, so Johnson ate the bear with the bear's own teeth."—Pathfinder.

Face the Facts

All ye thinking men of great influence and brains,

'Tis time for you to face the facts;
Captains of industry and those holding
finance's reins,

'Tis time for you to replace talk with
actual peace pacts!

Observe the poverty and distress prevailing;

Watch how those breadlines are length-
ening;

With unemployment widespread and business
failing,

Our foundation needs a thorough strength-
ening!

The machine has been abused to a great
extent

By many a greedy and profit-seeking cor-
poration;

Men by the scores to idleness were sent,
Causing poverty, gloom and consternation,

Whereas, if utilized the proper way
The machine could have been a blessing to
all;

It could give workers more leisure and in-
crease their pay,

Thereby helping prosperity to install!

And prohibition, the plague of our decade,
Is contributing its share to business decline;

For that calamity we already paid dear,
Besides being deprived of our wine and beer.

We must be sensible and act wise
If we're ever to see a better day;

All those millions meant for bootleggers and
spies

Could find better use in wage-earner's
weekly pay!

So, face the facts, all ye creators of our laws;

It's to you our eyes are turned for aid;

Enact immediate legislation to help the cause

And depression, like a nightmare, will soon
fade.

ABE GLICK,
L. U. No. 3,
New York City.

Pat and Mike were working on a new
building. Pat was laying bricks and Mike
was carrying the hod. Mike had just come
up to the fourth floor when the whistle blew.
"I hate to walk down," he said.

"Take hold of this rope," Pat said, "and
I'll let you down."

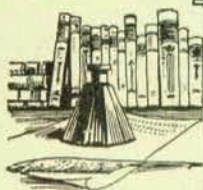
Pat let him down about half way, and
then let go of the rope. Mike landed in a
mortar bed, not much hurt but angry.

"And why did you let go of the rope?" he
demanded.

"I thought it was going to break," said
Pat, "and I had presence of mind enough to
let it go."

Define a Nut and Bolt

Here's what she wrote: "A bolt is a thing
like a stick of hard metal, such as iron, with
a square bunch on one end and a lot of
scratching wound around the other end. A
nut is similar to the bolt only just the
opposite, being a hole in a chunk of iron
sawed off short with wrinkles around the
inside of the hole."—The Safe Worker.



CORRESPONDENCE



L. U. NO. 8, TOLEDO, OHIO

Editor:

Just a few lines to let the Brotherhood know that Local No. 8, of Toledo, is still alive and kicking, in spite of the depression and the bitter open shop fight which is being waged against us at the present time in this city.

The unemployment situation here has remained unchanged for the past several months and there are very few of our members working at present. There are no prospects in the way of jobs in the near future so we will have plenty of time to think things over and perhaps some day American workmen will wake up to the fact that they themselves are at fault because they are disinterested individuals, instead of pulling together, and demand action to improve the conditions in the country today.

We have been holding some good meetings of late and some of the Brothers have entered into interesting discussions on the conditions at present and their causes and possible remedies for recovery. This at least indicates that we have some members who are not disinterested individuals, and I for one would rather listen to something of that nature than see the meeting adjourn within an hour or less after opening, and no interest being shown towards improving present conditions.

Our aim is to keep our present wage scale and not accept a cut. We realize that nearly every local in the country has accepted a cut in some form or other, but we feel that it takes too long to regain that which we would lose by taking a cut now. As long as there are hardly any members working we may just as well hold our present wage scale as long as possible as we have nothing to lose and everything to gain.

I hope to see more members down to meetings and hear something from them, especially the older members. Perhaps we can all learn something of interest to ourselves and organized labor in general.

HARRY B. VAN FLEET.

L. U. NO. 135, LA CROSSE, WIS.

Editor:

Been some time since the Brothers have heard from L. U. No. 135 through these columns. This great depression or so-called economic period that we are now struggling through can be credited with one thing and that is this article. Does not do it justice though by writing such a short letter. If the time lost by the Brothers was devoted to writing guess we could fill a volume.

Things are pretty quiet right now with most of the Brothers doing part time and some less than that. Had a number of good-sized jobs here last year but are all finished now and we are looking for more. All indications warrant a pretty quiet year. Have a postoffice going up but as far as employment is concerned it looks rather poor for us.

Last year we got our five-day week with the same wage scale. The five-day week is a great thing especially in the hunting and fishing season. This year we were forced to accept another 20 per cent reduction. The reduction this year was general throughout the

building trades and ranged from 10 to 25 per cent. The contractors claim it will stimulate business, which remains to be seen.

Had election of organizer and business agent for the building trades some time ago. Would like to have seen a change, which did not occur for some reason or other. Personally, I think a change would do some good. The present organizer isn't a bad fellow but it seems to be a case of a good horse outliving his usefulness.

Our meetings have been fairly well attended but in a time like this when there are so many leisure hours the least the Brothers could do would be to attend meetings regularly.

How about bringing old John Barleycorn back to town? This is one place where he would be mighty welcome, especially when we have a smoker. About time we had another smoker. Maybe we could forget the depression for one night at least.

Better sign off now and call it a day. Try to do better next time.

G. W. SHRUNE.

L. U. NO. 177, JACKSONVILLE, FLA.

Editor:

We believe that when we have anything good we should share it with others, and we have some good news which we feel sure will help to cheer those who are suffering from a bad case of the "depression blues."

Our feeling is aptly expressed in the letter of Brother Thiot (508) published in the April WORKER, when he says, "while sore-heads and malcontents have been howling and belly-aching, the leaders have been busy doing things." We can see the difference here—in our own local union, and in the central body. Perhaps the fact that men are unemployed and have plenty of leisure to think, has been the cause of this change that

has come over the men and women in the labor movement. Anyway the change is very noticeable. To be idle causes distress, and its effect works in different ways on the human mind. Some allow it to gnaw at their vitals until they lose their minds, from worry, while others keep their minds occupied by trying to figure a way out and are too busy doing things to worry.

It is easy to see which kind is in the majority, for we are making gains, however slow, even while we are being held back by those despondent ones who can see no ray of hope ahead, and are willing to keep slipping backward, and unable to help themselves because of their own weakness.

Again referring to the April JOURNAL for a subject, and to illustrate a point, even Brother "Goody" in his cartoon, takes an optimistic turn. He sees the workers have reached the peak of unemployment, and although it takes a telescope to see prosperity away in the distance, it appears to be downhill traveling from here on. Don't let's, however, burn any bridges behind us. There may be a chasm ahead too deep and too wide to be crossed, and we may possibly have to come this way again.

We in Jacksonville believe that we have made a decided gain. During the past two months a new agreement has been entered into with a majority of the better contractors. It is true that there has not been much improvement in the situation as far as work is concerned, but we believe that there has been a great deal of improvement in the condition under which we will work, because we now have the co-operation of a large group of employers who are striving toward the same goal, "betterment of the industry," and we cannot help but feel elated over the prospects for the future.

The tone of the letters, many of them, in the last issue of the JOURNAL, would indicate that other localities are also taking the more optimistic view.

Locally we are in the midst of a plan to put many of our unemployed to work. Through the central labor council, we have elaborated somewhat on the plan being carried on by the American Legion, the Legion auxiliary and the National Association of Advertisers and the A. F. of L., by first going into an intensive advertising campaign to acquaint the public with our plan. By a system of letters, newspaper publicity, radio announcements and personal contact with the various civic, fraternal and religious bodies, we are getting this message over. We have one sole aim in this drive—to put idle men to work. We have received wonderful co-operation from the churches, the public schools are putting this message out through the children and the American Legion is wholeheartedly behind the move. At the culmination of this campaign of publicity, a committee of about 200 women, representatives of all labor organizations in the city, will personally or by phone, contact every householder in the city that it is possible to reach, with a direct appeal to have needed building, rebuilding and repairing done now.

This is the result of the efforts of those who realized that something must be done, putting their heads together and going out

Warning!

A. F. McQueen (Card No. 569320) has notified this office that his withdrawal card and receipts have been stolen and may be used by others than himself to secure financial aid from local unions, especially in Wisconsin, Illinois and Iowa.

Local unions are hereby warned to be on the lookout for any one who may be trying to use such receipts under false pretenses, and verify membership by telegraphing the International Office.

and doing it, instead of putting their heads between their knees and waiting for prosperity, or death, to overtake them.

We just witnessed here, this morning, a parade of young boys, hundreds of them, our future executives and artisans, helping to celebrate the national Boy's Week. One of the banners carried the message, "America's chief business is the making of men." We wish it were true, but it isn't. The chief business of America was making money, but its chief business now is to try to recuperate from a business paralysis which has weakened our whole business structure. The business of building men has been forgotten.

Another banner says, "Be loyal to your country." A good motto to follow, but if we would be loyal to our country, we must first be loyal to ourselves. Stepping out of the line to rest, and leaving the other fellow to carry on, is imposing a double burden on the man who is trying to keep the line intact. To lay down on the job is a form of disloyalty that cannot be excused. We sometimes wonder if every member who holds himself up as an example of loyalty to country, is really loyal to himself. Does he take an interest in the training of the future generation of boys and girls, who will make up the future citizenship when we are no longer able to carry on? Or is he burning his bridges behind him and making no provision for those who are to follow this way?

We are taking a very active part in political matters here and through the Political Labor League are making a thorough investigation of all candidates from the lowest to the highest. We are making a systematic canvass of the various wards to see that all members are qualified before the qualification period is closed. So we say to you, if you feel down hearted and blue, try going out and helping some less fortunate and see if it don't make you feel better.

E. C. VALENTINE.

L. U. NO. 226, TOPEKA, KANS.

Editor:

One of the most interesting letters in last month's (May) JOURNAL was that of Brother A. W. Thiot, of L. U. No. 508, Savannah, Ga. While Brother Thiot is describing conditions in the southland, he is also depicting those of the rest of the country. If you haven't read it, it will pay you to look up your May JOURNAL and do so.

He says in opening, "When a ship is disabled the natural instinct of the coward is to desert it," and he couldn't have described the situation in Topeka, Kans., better if he had been here himself and written from observation.

But we think we are better off with the double crossers and weak-knees out of the organization than in it.

We had a shop made up of men dominated by their boss, too scared to disagree with him, who in order to work for less than the scale went into the boss' home-made corporation. But it was because these sisters were weak that their boss was so brave with them and got them into trouble in the first place.

Topeka has 18 licensed contractors and we work for about three or four of them, but we are happy because we feel that most of the tattle-tales are out.

We still have one helper who takes a few notes, so I am told, but he isn't harming anyone but himself.

A real union man after all is one who belongs to the union from principle and not for personal gain. The chap who is always counting the cost of his card and then seeing if he has received benefits in dollars and cents in proportion is of little value when the storm breaks and trouble is brewing.

TAXATION

Tax the people, tax with care,
To help the multimillionaire.
Tax the farmer, tax his fowl,
Tax the dog and tax his howl.
Tax the hen and tax her egg
And let the blooming mudsill beg.
Tax the pig and tax his squeal,
Tax his boots run down at heel.
Tax his horses, tax his land,
Tax the blisters on his hand.
Tax his plow and tax his clothes,
Tax the rag that wipes his nose.
Tax the house and tax his bed,
Tax the bald spot on his head.
Tax his ox and tax his ass,
Tax his "Henry," tax his gas,
Tax the road that he must pass
And make him travel on the grass.
Tax his cow and tax his calf,
Tax him if he dares to laugh.
He is just a common man,
So tax the cuss just all you can.
Tax the laborer, be discreet,
Tax him walking on the street.
Tax his bread and tax his meat,
Tax the shoes clear off his feet.
Tax the payroll, tax the sale,
Tax his hard earned paper kale,
Tax his pipe, tax his smoke,
Teach him government is no joke.
Tax their coffins, tax their shrouds,
Tax their souls beyond the clouds.
Tax the farmer, tax his flocks,
Tax his servants, tax his socks.
Tax the living, tax the dead,
Tax the unborn ere they're fed.
Tax the water, tax the air,
Tax the sunlight if you dare.
Tax them all and tax them well,
Tax them to the gates of hell.
But close your eyes so you can't see,
The coupon clippers go tax free.

A. C. LEASE,

Local Union No. 387.

Freeport, Ill.

The sooner such selfish and mercenary card men are booted out the more wholesome the union will be for those who love the union for what it stands—Brotherhood.

J. R. WOODHULL.

L. U. NO. 292, MINNEAPOLIS, MINN.

Editor:

The depression still continues with no indication of any abatement; in fact it grows worse day by day. It has reached a point where the word depression fails to adequately define the condition. It has become a panic. In fact, in view of the many futile attempts that have been and are being resorted to in a frantic effort to check it, one would be justified in saying that it has been a panic from the very first.

This being the case, it would account, in a measure, for the failure of all efforts to check or even materially relieve the situation. People are incapable of coherent constructive thought when in the stress of a panicky condition. This is but one of the

factors that stand in the way of effectively solving the many problems that are confronting us as a result of the present breakdown of our capitalistic industrial system. There are two other factors that play a major part in preventing an adequate remedy being applied to this condition. On the one hand is the actively antagonistic opposition to any change by those who, on account of their strategic position and relationship relative to the situation, are able to take advantage of it and benefit themselves thereby, together with the passive inertial opposition to any change of a much larger group, who are not seriously affected by existing conditions and who either fear that they would lose by a change or are too indifferent to take any interest in the matter. On the other hand, there is that great lack of knowledge or of intelligence, or of ability, or of all three, which prevents the great majority who are seriously affected from over-riding the opposition and putting into operation a change that would effectively remedy the situation.

While all three factors definitely affect the matter, the last one, I would say, is the keynote to the situation. A majority can rule, if it will, but for successful majority rule, two things are necessary—competent leadership, with a definite objective and a loyal following of that leadership, with unity of purpose and action. These are the things for which there is an urgent and crying need, and these are the things that there is a deplorable lack of today and has been for some time. For today we are led hither and thither by an incompetent, bewildered half-leadership (or misled by a self-seeking mis-leadership) which, instead of having a definite objective, has a wide range of conflicting objectives. Of course, this makes for a half-hearted, much divided, luke-warm and very controversial following that go around in circles, like a cat chasing its tail, and get nowhere.

It appears to me that there are two facts that lie at the root of this condition of affairs; first, that we have entirely misunderstood the nature of the problem and second, that in consequence of this, we have failed to recognize the necessary proper objective to remedy the situation.

The problem is a social problem and while this has, in some cases, been recognized, to a certain extent, the problem has always been dealt with as a financial, industrial or commercial problem, and the more fundamental social elements have been entirely lost sight of.

Society is composed of human beings. Society is humanity in the aggregate. Social problems are primarily and basically human problems and they must be dealt with in terms of human values rather than financial or commercial values. Means must not be mistaken for ends.

All human problems are more or less intimately connected with or related to that greatest and most profound of all human problems. "What is the meaning and objective of life?" And our treatment of any given problem will be greatly influenced by our attitude towards this greatest of all human questions.

To me, the answer to this is "life!" Life is an end within itself. It is both a means and an end; it is its own objective and the means to that objective. We live that we may enjoy life; that our children, our parents, our friends, our countrymen and if, or when, our viewpoint is broad enough, all humanity, along with ourselves may enjoy a full, happy, prosperous and generous life.

Idealism? Call it idealism if you will, but it is the lack or neglect of this kind of idealism that lies at the base of our present troubles. Too long have we subordinated

NOTICE

Due to the early closing of this issue on May 23, many of the press secretary letters will arrive too late for publication in June. These letters will be held and used in July unless we are notified at once.

human values to the value of things; exalted property values above the value of life, and happiness and health and human well-being. All too long have we permitted selfish, heedless, avaricious or unsocially-minded individuals or corporate interests to accumulate and safeguard the rights of property at the expense of the perpetuation of human misery, suffering, degradation, starvation and death. It is time that we replaced the present worship and exaltation of property interests and the "almighty dollar" with some of that idealism that places human life, happiness, health and manhood above the value of things or the right of their possession. Property was made by and for man; not man for property.

Therefore, if we are to solve this problem, if we are to avert the greatest catastrophe that the world has ever seen, if we are to make a world safe and fit for the habitation of civilized man, then it is up to the people to rise as a unit and demand in no uncertain terms that the laws of this country shall be changed so that they will effectively safeguard these human values regardless of what may be the effect upon the rights of property or vested interests.

W. WAPLES.

L. U. NO. 329, SHREVEPORT, LA.

Editor:

Organized labor is today undergoing its greatest leak in its existence. The rank and file are definitely deserting in alarming numbers. In the minds of thousands "unionism" is already divorced from the cause of social welfare, and considered to be a blessing to the industrial "capitalistic" system. An oft quoted example of this is the betrayal of the workers by the A. F. of L. on the issue of unemployment insurance.

The working classes are hungry for justice, the better things of life. They want to share the wealth of the world which they have suffered so much to produce.

Organized labor, as they see it, is facing a hopeless future and must wake up or die a natural death.

Unionism has stood still while the world has been moving forward. The rank and file are looking for a modern Moses to lead them out of the wilderness of their economic bondage, to free them of the baleful influence of special privilege and industrial slavery. They want free men with honest opinions to stand as guideposts along the way.

Unless organized labor makes a genuine effort to assist in creating for the workers a social system founded on industrial democracy, and unless organized labor leaders persuade the working classes that organized labor is fighting their battle for emancipation of their social and economic oppression, thereby restoring their confidence in the principles of unionism and unless it discontinues to support our present theocratic and autocratic structure of industrialism, it will go down to oblivion crushed by the revolutionary forces of the working classes, who are banding together to free themselves of economic tyranny.

The voices of the grease-besmirched mechanic, the mud-besmirched laborer and horny-handed son of toil and sweat are loud in denouncing the professional labor politicians. They see in their mind's eye a "gentleman" whose only purpose in life is monetary rewards; they hear this chronic gentleman declare his love for the working men, although they notice he does not depend upon this love to reach his ends. They see him in public life proclaiming to be a "poor man," but in private they'll see him well dressed, ornamented with a diamond on the shirt and a fat cigar in the mouth.

Organized labor to day is at a standstill,

both in its physical and its moral form, and unless it awakens from its lethargy it will never again enjoy the confidence and the support of the laboring classes.

He who cannot see any logic in my reasoning is blind; he who refuses to see any is worse than blind.

Organized labor, open your eyes, unshackle your minds, see the truth, quit dreaming, protect your own interest, fight and banish the intellectual prostitutes in your ranks, who sacrifice you to pile up wealth for enemies who laugh at you for your pains. Help the working classes, not by mere political action in the conventional way, but by a fundamental economic change. Free your local lodges of outside influence and reactionary elements with the itch to control. Work for economic security, and remember you cannot prosper unless you have full production plus full consumption, for that alone means prosperity.

Many a fraternal hypocrite will refuse to know or to believe the facts here set forth, and will accuse me as a base plotter against the pure name of a great organization. To those I will say, I recognize that leaders of organized labor are liable as other men to the impulses of human nature. My criticism is not that he is human, but that some pretend so persistently not to be—and that hypocritically they so often denounce human nature in others.

CHAS. PIETERS.

L. U. NO. 353, TORONTO, ONT.

Editor:

It is some time since a letter appeared in the JOURNAL with a Toronto postmark. Since last Christmas no new work of any kind has opened up and three or four of the jobs which had started at that time have been pared to a minimum so that there has been

very little doing for the boys and absolutely nothing to write about unless one felt like talking blue ruin.

Now that we have a message of importance, we are going to crash into your valuable paper, as we think it is the best medium for reaching our members. The fourth Thursday of June is election night, at which meeting officers will be elected to conduct the business of this organization for the next two years. We urge every member to come down and cast an intelligent ballot, bearing in mind that the coming two years will make or break the organization. There is no intention of the writer of influencing your vote. Our sole interest is to get the boys down to vote for somebody so that the onus and responsibility of the organization's success or failure will rest on the shoulders of the entire membership rather than on a few regulars who have been carrying the load for many years.

Conditions during the past year should convince each and every member of the electrical trade that his membership depends entirely on conditions in the electrical industry and his organization's ability to grasp whatever work is available for its membership.

Yours truly,

FRANK J. SELKE.

L. U. NO. 474, MEMPHIS, TENN.

Editor:

"If you cannot speak well of your Brother, do not speak of him at all," may be a good saying, but if some smart, well-educated men could have heard everything that went on at our last meeting, one would think it was a knife-throwing contest, right in the back. It is not an odd thing to have this in any local, but the worst part is that all these nice, damnable lies are thrown across the floor when one is not present, when if he were

"Craft Chats"

By G. M. MILLER

Recent developments in automatic overload protective devices for the protection of branch circuits, appliances and feeders, marks a great stride in the industry. For many years we have felt the need of something that could not easily be tampered with by unqualified persons, something affording safe protection, yet taking care of the highly inductive loads that many appliances impose on ordinary or appliance circuits.

An outstanding feature of these devices is that these ratings coincide with our code capacity ratings for rubber-covered wires in the sizes most frequently used. In the past, if a circuit required 15 Amp. protection we installed a 30 Amp. fuse gap, knowing that when the fuse had blown the uninitiated would replace it probably with something larger, if the occupant happened to be burning a few lamps and his refrigerator or similar appliances started up the fuse burns out and he hies himself to the neighborhood drug store or hardware store for a fuse, any old thing that would fit the gap, because to him when a fuse blows it is obviously too small when he finds the higher rated fuse holds.

Similarly we would install a 60 Amp. gap for a wire of 35 Amp. capacity, 100 Amp. gap for a 70 Amp. wire, 200 Amp. gap for 125 Amp. wire, etc., knowing that in many cases replacements are made by unqualified persons whose only idea is to get things going. With the advent of these no fuse or circuit breaker units, how simple it becomes, i. e., a 15 Amp. breaker for No. 14 wire, 25 Amp. for No. 10, 35 Amp. for No. 8 and so on through the line, in each instance a maximum rated breaker for a maximum rated wire.

Construction of these units is such that they cannot be held closed against overloads or shorts, hence when trouble occurs it must be located and remedied by the occupant if he knows how or some qualified person; he cannot as now slip in a larger fuse nor bridge out the breaker without a great deal of trouble and then he must leave glaring evidence of the results of such tampering.

Thus we appear to be bringing back within the industry much business that formerly went to the butcher, the baker and the candle stick maker, and at the same time have a simple, reasonably priced device that we may select in accordance with our wire capacities which also affords adequate protection. This material well merits recognition as filling a long felt need and should bring much replacement as well as new business.

there it would not be said at the meeting—no, but on a street corner. If these knife throwers are determined to have their say of vile things, any street corner will do.

Well, Mr. Editor, we recently had one of the finest, best cotton carnivals the south has known for many years. And did the public respond? I'll say; they turned out by the thousands! Many a dollar was spent for bus fares, railroad fares, car fares, gasoline and above all it has taken plenty of dollars to throw that three-day celebration. When, if that money had been used to aid and assist the poor and unfortunates who really need help, the merchants would have derived as much benefit that way as they did by the carnival. A majority rules in this country—a majority of dollars. Sure!

As my pencil is short and have a few words left, I will finish with a few lines to the business agent. Here goes:

The Business Agent

The business agent, pity him;
You ought to, if you won't.
He's damned by some because he does,
By others if he don't.

He works all day and half the night,
He's always on the job;
A task like this can't well be filled
By bonehead, nut or snob.

On Sundays if he ever should
Desire to go to church,
When he's not Johnny-on-the-spot,
For him they start a search.

Inside a month he listens to
A thousand tales of woe,
And some believe there's not a thing
But what he ought to know.

He's a target for the "moocher,"
And he can't keep out of range
Of the "tourist," who, when stranded,
Badly needs a piece of change.

The knockers with their hammers
Keep on stirring up a stink.
Yes, his path in life's a pleasure,
Strewn with roses—I don't think!

"Memphis on the Mississippi."
R. B. BAKER.

L. U. NO. 508, SAVANNAH, GA.

Editor:

On all sides we hear talk of revolution. An oppressed people are about to reach the point where they cannot stand the miseries of hunger, unemployment and the other consequential ills of a depression brought on by the mismanagement of those who control our financial, economic and political destinies. It is needless to go into detail as to who these people are, or what motives prompt them to keep in effect a system that permits a few to have more than they need and at the same time forces the many to do without even the necessities of life—the system must be changed, and by revolution, but not the kind of revolution that will cause the streets of the cities of our country to run red with the blood of our own people. Violence once started is impossible to hold in check. It goes on even after the cause which started it has been corrected; the innocent suffer as much or more than the guilty. Cowardly weaklings, who under ordinary circumstances would be afraid to even raise their voice against oppression will during the excitement of a revolt, if they chance to be on the winning side, be the most blood-thirsty of all, demanding the lives of friends after the foes have been vanquished. No, we must have no revolution of this kind. Read the history of any uprising of the people of

any country, and then decide if you would wish to go through all the horrors they have gone through.

There is a way, however, by which we may accomplish exactly what we want. A simple way that will not cost the life of a single person. A way that has been ours for years and years, yet it will no doubt be a revelation to many of the members of organized labor to learn of it—the right to vote. A majority of those who howl the loudest for relief cannot vote. Let's correct this and we will be in a position to correct all our troubles with a revolution—a political revolution. This is a political year; get qualified to vote, and then vote for labor's friends for municipal, state and national offices. Labor has never used its "lobbying power" as advantageously as it might have. If every member of organized labor will write the Senators from their state and the Congressmen from their district, demanding that the public works bill and some kind of bill for immediate relief of those who are starving be passed, it is more than likely that they will be passed. In the event they refuse to aid in passing sensible legislation of this kind, see to it that in November you vote for some one who will. And let's not confine our activity and pressure to Senators and Congressmen, let's make it a field day and vote the self-satisfied politicians and ring bosses out of our city halls and state capitol buildings and put in men and women who are sympathetic to organized labor.

A. W. THIOT.

L. U. NO. 560, PASADENA, CALIF.

Editor:

Five months of this year have about passed and each one found us a little deeper in the red. Some of our good Brothers have lost their homes, others are losing them, in fact we are told that of every home mortgaged, 50 per cent of its 1929 valuation is lost by reason of the drop in valuation. Truly a gloomy outlook for the many who have come to help build up a community of home owners.

Pasadena has about 5,300 destitute families and a drive is now on to raise relief funds. According to the block aiders \$15,000 a month should result, giving about a day's work a month to each family.

This city has opposed the state minimum wage law and is now building a \$10,000,000 dam under contract on which common labor receives \$3.50 a day of eight hours; six pays each, \$1.20 a day for room and meals. Two hundred men are now employed on this project.

We have had no bank failure and a report given out last year claimed bank deposits as highly gratifying. We understand they are even better now, but just try to get any construction loans from them.

Municipalities are having difficulty in selling bonds voted for construction work and every possible obstacle is raised to prevent the starting of any large project. It seems that some one has a few more dollars hidden away and until some one else gets control of it we must all loaf.

A Bridge, a Bankster and Broken Faith

In 1919, the city of Florianopolis, which was situated on an island in the state of Santa Catharina, Brazil, wanted a bridge to connect the city with the mainland. It was a project dear to the hearts of the people, who did not like to see the capital of the state isolated by water in these times of motor transportation.

A \$5,000,000 bond issue was authorized, bearing interest at 6 per cent. This was a comparatively low rate at that time but was justified by the state's unbroken record of never having defaulted on an obligation.

In due course the loan was placed with the banking house of Imbrie and Company, of New York. This banking house did not advance any money but merely placed a credit of \$5,000,000 on their books for the use of the state, from which they could draw for materials, engineering services, labor, etc., which were to be obtained in the United States and on which the usual profit was to be made.

The state in good faith turned over to Imbrie and Company the \$5,000,000 of 6 per cent bonds representing its obligation to the firm of Imbrie and Company, who evidently were expected to sell the bonds to the public or failing in that it was assumed that the banking house would put up the money themselves to carry out the projected work.

When the state had drawn on the account to the extent of only \$1,500,000, Imbrie and Company failed, with a lot of liabilities and no assets. An ordinary person would assume that the state of Santa Catharina was entitled to the balance of \$3,500,000 which had not been used, but, of course, we ordinary people do not understand just how these high finance people pull rabbits out of silk hats.

When the state demanded the return of the \$3,500,000 unused capital, they were informed that Imbrie and Company had "hocked" the bonds to a bank, spent the money and then failed, this leaving the state in the position of creditor against the estate of Imbrie and Company, a bankrupt with no assets.

The position of the state was now that they had a bridge started, \$5,000,000 of bonds out in peoples' hands to be honored and no money to finish the bridge. To give a simple illustration suppose you wanted to build a house, you give your banker a perfectly good note for \$5,000, the banker agrees to pay the contractor, as the work progresses, holding your note at 6 per cent as security. When the contractor has the foundations down he comes to you and tells you that he can go no farther because the banker has failed, but before doing so he has put up your note as collateral and borrowed all the money he could on it and then spent the money. You are now out the price of the house and only the foundations laid for the little home, you and your family can presumably go out and lay down on the lot and use the pillars for head rests.

Is it any wonder that we are disliked in South America; that revolutions are the order of the day there, against their political leaders who lead the people in debt to "Yanqui" banksters?

F. W. H.

Turn to page 177 of the April JOURNAL, study the picture thereon. Can anyone, by any stretch of imagination picture the gentleman as a humanitarian, thinking more of the well-being of his fellowmen than his own desire for great wealth and power? What can we expect with such men in control of our national policies?

On the other hand, on page 135 of the March JOURNAL, there is a group of our leaders, all kindly faced enough, but showing traces of over-feeding. Not many of the lean, hard go-getters. Perhaps the pinch of hunger would so sharpen their wits as to enable them to solve more of the problems now confronting us. If this gets by and any of the gentlemen read it I hope he visits his doctor not his lawyer.

Speaking of feeding, here's food for thought: According to no less an authority than Bernarr McFadden, a 60-pound bushel of wheat will keep the average man well nourished and in good health for two or three months, and he is now conducting tests to prove it.

Well, to get back to local affairs, the Work Plan died in committee (not hungry enough yet, I guess). Most of our members are out of work, some dropping out after being carried on the books for a time, all of us working when we can, at anything from a pick and shovel up, tightening up our belts and hoping relief comes before everything we possess is swept away.

Prospects are good for a bumper fruit crop, but lots of it will go to waste for lack of a cash market. Being a wireman, I've turned my attention to wiring up my own fruit trees to keep them from breaking down, and I'm getting to be an expert, having some 50 trees of various kinds to practice on.

The Brother who has to buy everything he eats has my sympathy these days.

H. W. HUNEVEN.

L. U. NO. 713, CHICAGO, ILL.

Editor:

Up to this time Local No. 713 has been able to pay its bills and we trust that we will be able to continue to do so. We have reduced our overhead recently and are doing our best to live on our income.

About 75 per cent of our membership is working short time and the remaining 25 per cent is out of work entirely, so it makes the going rather tough. We have been taking care of unemployed members' cards through assessments and if this so-called depression doesn't last too long we are bound to come out on top.

Our switchboard and panel board shops have been very hard hit, due to the fact that there is very little going on in the building trades. The new Chicago postoffice may give us some work providing the switchboards, etc., are not let to a non-union outfit. One of our shops did get part of the Radio City job in New York City, although the General Electric Company took the larger slice. However we are very thankful for the part we did get.

I notice that special mention is being made of members who are politically prominent and I must not forget to mention that a member of Local No. 713 has recently been elected mayor of that internationally known town of Cicero, Ill. Joe Cerny as we all know him has been a member of our local for the past 15 years and needless to say we are all very proud of him. Joe wound armatures for the Chicago surface lines for many years and was always one of the most popular men in the shop which goes to show that he is a real fellow.

JOHN F. SCHILT,
Business Manager.

L. U. NO. 715, MONCTON, N. B.

Editor:

Local No. 715 would like to say hello to Brothers of the I. B. E. W. We have only recently organized here and are also having our troubles with unemployment and money. Money is very scarce nowadays in this corner of the world. We have signed an agreement with the contractors of this city for one year from May 1, 1932. Our agreement calls for a closed shop. Only one third of our members are working and poor prospects of any work starting. We would not advise any of our Brothers to come here as work is very scarce. Some have not worked for more than four months. But we live in hopes that some day there will be enough work to go around and all the boys will work.

Our officers are as follows: S. Perry, president; C. Arsenaault, vice president; F. Ryan, recording secretary; A. Price, financial secretary; R. Williams, treasurer. Meeting nights are the second and fourth Thursdays of each month at the Labor Temple, Moncton, N. B.

ARTHUR W. PRICE.

Bootleg Wiring

Sub-Standard Hosiery vs. Sub-Standard Wiring Devices

You can step up to the counter in any five and 10 cent store in the country and select sufficient wiring devices to make a workable electrical installation. On the opposite counter you may buy cosmetics or women's hosiery. Each are equally easy to buy. One is almost as easy to apply as the other but here the simile stops. The worst that can happen to a 10-cent pair of hose is to run from garter to the heel. What can happen through the use of these sub-standard wiring devices none can foretell. It might mean a burnt finger or a conflagration—even death. Does the seller of these cheap electrical goods realize this? Does he realize that every foot of wiring, receptacle, switch or extension is potentially a dangerous implement when placed in the hands of the amateur? Does he ever buy this merchandise on terms of quality? It is entirely quantity and price—lower price.

And who benefits by the installation of these sub-standard bootleg devices?—the utility companies and manufacturers of appliances. The distribution of devices to transport electrical energy should be subject to rigid control, similar to that exercised by the Interstate Commerce Commission in the transportation of motion picture films, matches, explosives and certain chemicals. In each there is a hazard. In one strict control, the other is wide open.

Proper control of the sale of wiring devices should be a problem of the National Board of Fire Underwriters and the public utilities. It is a rather short sighted policy when it is considered that the sale and faulty installation of one device may put out of service from 10 or more to several hundred installations through fire loss. The lighting companies can easily control this and it should be a problem considered jointly by them and the National Board of Fire Underwriters. This could be accomplished through periodic inspection by the meter readers of the companies. An annual inspection of all installation beyond their meters and the underwriters through proper legislation by enabling enforcement of codes after an initial installation. In addition to this publicity could establish a moral control of the situation. If it was known that a penalty was attached to unauthorized installation it would require a very small personnel to discourage the

handyman from making his own installation. In many communities public health codes are enforced through possible inspection and established penalties. The same can be accomplished in the interest of safe electrical installation.

If wiring devices were not displayed with spark plugs, gas light tips, Wellsbach mantles, and house furnishings—with suitable tools for their installation—available on the same counters, this alone would discourage their sale. In addition it would be practical from the point of manufacturers to equip all wiring devices with screws and nuts which could not be readily made up with an ordinary pliers or screw driver. Instead of using a nut with parallel sides equip the device with one having an odd number of sides. This nut could be countersunk in such a manner that it could not be made up with a pliers but would require a special socket wrench. On the other hand there is no reason why a screw head should have a straight slot. It would not require elaborate tool equipment to produce a screw with a curved or zigzagged slot. This would require a special screw driver. In addition it is suggested that the sale of these tools be restricted. There is no reason why the manufacturer could not sell them at a very low price to electrical contractors. Of course if the layman wanted to purchase such a kit of tools let it be available to him at a price high enough to discourage purchase.

We also suggest other types of wire fastenings. Radio assembly has adopted some making wiring connection permanent rather than replaceable.

These comments and suggestions are offered in the public's interest for safer wiring and as a protection to the electrical manufacturer and contractor.

Electrical Code Revisions

In accordance with the program authorized by the National Fire Protection Association at the 1930 annual meeting (Proceedings, 1930, p. 235), for the interim promulgation of changes in the national electrical code, the electrical committee announces the following interim revisions of the 1931 edition of the code:

Art. 17, sec. 1701 (h)—Revise to read: "Where insulated wire is used for connections between resistance elements and a contact device of a rheostat, except for motor-starting service, the insulation shall be of asbestos-covered (type A) or of the slow-burning (SB) type."

Art. 31, sec. 3102 (l)—Revise first sentence to read: "Wires between main circuit resistors and the back of control panels shall be asbestos-covered (type A) or of the slow-burning (SB) type, as prescribed in section 1701, paragraph h, of this code."

Art. 36, sec. 3604 (h)—Revise to read: "Approved asbestos-covered (type A) or approved slow-burning wire (type SB) shall be used for wiring the border."

Art. 39, sec. 3903 (d)—Revise first sentence to read: "The common return wire shall not be smaller than No. 14; shall be of either the rubber-covered (type R), the asbestos-covered (type A), or the slow-burning (SB) type and shall not be contained in the cable."



DIAMOND-SHAPED BUTTONS

To wear in your coat lapel, carry the emblem and insignia of the I. B. E. W. Gold faced and handsomely enameled. **\$2.50**

IN MEMORIAM

To Charles P. Ford, by L. U. No. 9

The death of our beloved and highly esteemed president of the Union Cooperative Insurance Association, Charles P. Ford, is deeply lamented by the membership of Local Union No. 9, of the International Brotherhood of Electrical Workers, and we join our Brothers in our International organization in paying a tribute to his memory.

The advancement of sound unionism, and especially the interests of the International Brotherhood of Electrical Workers, were always of first importance to Brother Ford, and his place is secure in the hearts of all true unionists in the international labor movement. His great zeal and efficiency in behalf of the insurance division of our Brotherhood are recognized by all, and the good he thus wrought cannot be measured.

Local Union No. 9 feels privileged to pay its due respects to a member of our Brotherhood who has so distinguished himself as our late Brother and it is with profound sorrow that we note his death.

To the family of Brother Ford Local Union No. 9 extends its heartfelt sympathy. The recollection of his good deeds and great usefulness in the cause of our Brotherhood is a lasting memorial to his own life and to his co-workers, and in this recollection all the members of Local Union No. 9 join with his family in obtaining a measure of consolation in the death of our dear Brother.

Fraternalty yours,

HARRY SLATER,
Recording Secretary,
Local Union No. 9.

FRANK P. O'BRIEN,
President.
WILLIAM PARKER,
Vice President.
JOHN LAMPING,
Treasurer.
LUTHER M. FEE,
Financial Secretary.
IRWIN V. KNOTT,
Business Manager.
Committee.

To Charles P. Ford, by L. U. No. 2

Local No. 2 mourns the loss of Brother Charles P. Ford. We wish to extend our sympathy to the bereaved family through the International Journal. Be it

Resolved, That we drape our charter for a period of 30 days in his memory.

WM. WAGNER,
EDW. MERRITT,
J. P. PEADY,
Committee.

C. H. Mackey, L. U. No. 214

Whereas Local Union No. 214 has been called upon to pay its last respects to a departed Brother, C. H. Mackey; and

Whereas we greatly mourn his sudden and untimely passing and desire to express to his family our utmost sympathy; therefore be it

Resolved, That our charter be draped for a period of 30 days; and be it further

Resolved, That a copy of these resolutions be sent to the family of our departed Brother, a copy be spread on the minutes of this local and a copy be sent to our official Journal for publication.

J. O. HELANDER,
A. M. CORRAZZA,
J. A. WRIGHT,
Committee.

N. G. McCabe, L. U. No. 145

It is with deep regret and sorrow that Local No. 145, I. B. E. W., records the sudden passing of our late Brother, W. G. McCabe, into eternal life.

Resolved, That we extend our sympathy to those who remain to mourn his loss and the passing of Brother McCabe leaves in Local No. 145 a void which can never be filled; and be it also

Resolved, That our charter be draped in mourning for 30 days in respect to our departed Brother.

E. L. SMITH,
C. D. CASE,
J. WOODS,
Committee.

William Brammer, L. U. No. 9

Whereas it has pleased Almighty God, in His infinite wisdom, to remove from our midst our esteemed and worthy Brother, William Brammer; and

Whereas Local Union No. 9, of the International Brotherhood of Electrical Workers, has lost in the death of Brother Brammer one of its good and true members; therefore be it

Resolved, That Local Union No. 9 hereby expresses its appreciation of the services to our cause of our devoted Brother and our sorrow in the knowledge of his passing; and be it further

Resolved, That Local Union No. 9 tenders its sympathy to the family of Brother Brammer in their time of sorrow; and be it further

Resolved, That a copy of these resolutions be sent to the family of our late Brother, a copy be spread on the minutes of our Local Union No. 9, and a copy be sent to the official Journal of our Brotherhood for publication.

SAM GUY,
DAN. MANNING,
HARRY SLATER,
Committee.

A. Leonard Holbeach, L. U. No. 46

Local Union No. 46 is again called upon to record the final account of one of its worthy members and to pause silently in respect to the memory of Brother A. Leonard Holbeach. Our organization has lost in the death of Brother Holbeach one of its faithful and true members.

It is on occasions like this that the sense of brotherhood is borne in upon us more closely—that the appreciation of friendship and fraternity is the greatest.

The members of Local Union No. 46 wish to impress upon the bereaved members of our late Brother's family that we share their loss and in sympathy, would lighten the burden of their sorrow.

As a tribute to the memory of Brother Holbeach, be it

Resolved, That this expression be forwarded to his loved ones, copies sent to our Journal for publication and included in the minutes of our meetings, and that our charter be draped for a period of 30 days.

H. HILBERT,
L. E. THOMAS,
A. J. CREEL,
Committee.

Albert K. Disbrow, L. U. No. 6

Whereas it is with deep regret that we, the members of Local Union No. 6, of the International Brotherhood of Electrical Workers, mourn the loss of our late Brother, Albert K. Disbrow; and

Whereas while we humbly bow our heads in submission to the will of Almighty God, we feel that in his passing away this local has lost one of its loyal and faithful members; and therefore be it

Resolved, by the members of Local Union No. 6 in regular session assembled, That we extend to the family of our late Brother, Albert K. Disbrow, our heartfelt sympathy and condolence; and be it further

Resolved, That a copy of these resolutions be sent to the family of our late Brother, a copy be spread in full upon the minutes of Local Union No. 6, and that a copy be sent to the International Office with the request that they be published in the official Journal; and be it further

Resolved, That the charter of Local Union No. 6 be draped in mourning for a period of 30 days in respect of the memory of our late dearly beloved Brother, Albert K. Disbrow.

ALBERT E. COHN,
FRED S. DESMOND,
W. GIMMEL,
Committee.

The above resolutions were adopted at the regular meeting of Local Union No. 6, held on Wednesday evening, May 4, 1932.

CHAS. B. WEST,
President, L. U. No. 6, I. B. E. W.
CHARLES J. FOEHN,
Recording Secretary,
L. U. No. 6, I. B. E. W.

Charles W. Hodgeman, L. U. No. 18

Whereas Local Union No. 18, I. B. E. W., records the passing of our esteemed Brother, Charles W. Hodgeman, on April 4, 1932; therefore be it

Resolved, That we, as a local pay tribute to his memory by expressing our deep sympathy with his family in their bereavement; and be it

Resolved, That a copy of this resolution be sent to his family, a copy be spread upon our minutes, and a copy be sent to the Electrical Workers Journal for publication; and be it further

Resolved, That our charter be draped for a period of 30 days, and that we, the members of Local No. 18, being lawfully assembled, stand in silence for one minute in further tribute to his memory.

EDW. A. MONAHAN,
RALPH H. TODD,
HARRY M. WILLIAMS,
Committee.

Gust Anderson, L. U. No. 292

It is with sincerest sorrow and regret that we, the members of Local No. 292, record the death of our esteemed Brother, Gust Anderson, who passed away on April 16, 1932, at the age of fifty and one-half years, having been born in Sweden on October 2, 1881.

Brother Anderson became a member of Local No. 292 in 1911 and has been a true and loyal member ever since, esteemed and honored by all who knew him; therefore be it

Resolved, That we extend our condolence and deepest sympathy to the bereaved ones who mourn his loss; and further be it

Resolved, That a copy of this resolution be sent to the bereaved family, a copy sent to the Journal for publication, a copy spread on the minutes of Local No. 292 and that our charter be draped for a period of 30 days in honor of the memory of our departed Brother.

W. WAPLES,
Press Secretary, L. U. No. 292.

DEATH CLAIMS PAID—MAY 1 TO MAY 23, 1932

L. L. No.	Name	Amount
130	R. A. Cook	\$1,000.00
134	O. W. Bunger	1,000.00
3	T. J. McTiernan	1,000.00
98	Q. L. Seay	1,000.00
46	A. L. Holbeach	1,000.00
292	Gust Anderson	1,000.00
6	A. K. Disbrow	1,000.00
41	W. S. A. Mutter	650.00
673	Leo Altrogge	300.00
245	W. J. Foran	1,000.00
I. O.	Wm. Kiphuth	1,000.00
3	Walter Darby	1,000.00
103	P. W. Collins	1,000.00
41	H. J. Gough	1,000.00
79	O. Gross	1,000.00
164	Henry Lyons	1,000.00
3	E. Lademann	1,000.00
3	F. E. Sheridan	1,000.00
98	Jos. M. Collon	1,000.00
3	A. Hoffman	825.00
45	Harry Rihsam	1,000.00
28	H. C. Keenan	1,000.00
544	F. F. Duel	1,000.00
3	Chas. Dickson	825.00

Death Claims paid May 1 to May 23, 1932	\$22,600.00
Claims previously paid	2,662,202.76
Total claims paid	\$2,684,802.76

You can dissolve everything in the world, even a great fortune, into atoms. And the fundamental principles which govern the handling of postage-stamps and of millions of dollars are exactly the same. They are the common law of business, and the whole practice of commerce is founded on them. They are so simple that a fool can't learn them; so hard that a lazy man won't.—Philip D. Armour.

STORY OF THE MAN WHO HELPED BELL

(Continued from page 305)

What a Moment in Electric History

On this hot day in June, they were tuning the receiver reeds. Bell was in one room pressing the reeds to his ear one by one as Watson sent him the intermittent current of the transmitter from the other room. He plucked it with his fingers to start it going. The contact point was evidently screwed too hard against the reed and as he began to readjust the screw while continuing to pluck the reed he was startled by a loud shout from Bell who came rushing out in great excitement to see what he was doing. What happened was obvious. The too closely adjusted contact screw had prevented the battery current from being interrupted as the reed vibrated and, for that reason, the noisy whine of the intermittent current was not sent over the wire into the next room. But that little strip of magnetized steel he was plucking was generating by its vibrations over the electromagnet, that splendid conception of Bell's—sound shaped electric current.

Probably nothing would have come from the circumstances if any other man than Bell had been listening at that moment, but he with his mind prepared by his great conception instantly recognized the supreme importance of that faint sound. It told him his long-studied idea had at last found its mechanism for he knew he was hearing, for the first time in history, the tone and overtone of a sound transmitted by electricity.

Bell soon gave up his teaching in Salem and moved to Boston. He hired, for four dollars a week, two rooms in an attic of a boarding house at 5 Exeter Place, about a half a mile from the shop. After that, practically all his experiments for the next two years until the telephone was ready for public use, were carried on there.

Bell filed his first application for his telephone patent on February 14, 1876, and so novel was the invention that his patent was granted almost immediately. It was not until March 10 that the telephone was sufficiently developed to transmit a whole sentence intelligibly.

At this time, early in 1876, there was but one outdoor telephone line in the world. It was the iron wire about a half mile long, grounded at each end, that connected the Exeter Place laboratory with Williams shop. This No. 12 galvanized wire was run over the house tops. There were no trolley cars or electric light wires and the only other electric current circuits in constant use were the telegraph wires.

Watson Makes \$3 a Day

Watson was now offered a tenth interest in Bell's patents if he would give up his job at Williams and devote his whole time to Bell's work. He hesitated, for he had a good job at Williams, earning three dollars a day. It was two

TO THE NON-UNION MAN

By A. H. URTUBEES, L. U. No. 292

Mr. Non-Union Worker where'er you may be,
I wonder do you ever think
Of the struggle you cause us to put up for you?
If it were not for us you would sink.
We're fighting for justice; the right to enjoy
A part of the things we produce.
If you would but do just a part of your share
We would readily cure that abuse.

Mr. Non-Union Worker, whoever you are,
A question of you I would ask;
Why do you haste to the aid of the boss
Thus make all the harder our task?
The struggle is yours as well as our own;
We have the same object in life;
We hope to secure through our efforts a few
Of the good things for baby and wife.

We fight for conditions you all profit by,
And honestly what do you do
When you man the jobs that we label "unfair"?
You wreck things for us and yourself, too.
You get some conditions we ask for, we know,
But they are a long way from right;
We would all get the things that are justly our own
If you had the nerve to help fight.

You make us fight you and the bosses as well;
Why you do that I do not know.
It is not your love for the boss, I believe,
That causes you all to act so.
Too often you know the boss is all wrong.
Still you hurry on to his aid;
Unless you are hungry and really in want
You have no excuse, I'm afraid.

If you'd remain neutral and not help the boss
And treat us as friends, not as foes—
But you and the bosses contend we are wrong.
When the truth just the opposite shows.
The struggle we're waging is meant to help all;
Now you must admit this is true.
The more we obtain of the things we should have
Makes life that much better for you.

Supposing we took the same stand that you take:
Submitted to them as you do;
Accepted each wage-cutting plan they proposed.
And lengthened our working day, too.
I think you can see that in but a short while
To the poor house we would have to go.
Instead of fighting like fools 'mong ourselves
We should both fight the boss; he's our foe.

The bosses are organized. How well we know.
Their motive is painfully clear.
When you ask for wages so rightfully yours
You get but a snarl or a sneer.
You cannot deny there's but one thing that stops
Many bosses from driving too hard;
That is Organized Labor and nothing else, friend;
You owe much respect to our card.

We know times are bad and they would be much worse;
Here is something else you can't deny:
The bosses would grind you down farther each day
If we should stand idly by.
There is none so blind or so dense they don't know
That what I have said is but true;
Each struggle we have you should help us to win;
In that way you'd help us to help you.

Oh, would that I had but the power to make
You see things as they really are!
The reign of the iron hand boss would be done.
His realm would not reach very far.
The worker would get what is justly his own
And living would be well worth while.
The worker would change and instead of a frown
His face would be lit with a smile.

There must be a reason why you are outside,
When really you ought to be in.
Whatever the reason, whatever the cause,
There is something you still owe your kin.
You owe them the right to live as folks should;
You owe them the best you can give;
Your wants and ours are one and the same.
So join us and live and let live.

weeks before he made up his mind to accept. In later years Watson made 60 patents in connection with the telephone and one alone was worth to the Company all he got from the contract.

But all this experimenting was expensive and financial problems were getting more and more troublesome. Sander and Hub-

bard, the two men who were paying for all this, were getting impatient for some returns and offered to the Western Union Telegraph all Bell's telephone patents for \$100,000. But that company evidently had no faith in the future of the telephone for they refused to buy the patents and wouldn't even make an offer for them. Two years later these same patents could not have been bought for \$25,000,000.

The Western Union soon discovered that Bell's telephone was a good deal more than a toy and as Bell's patents were no longer for sale, that company started in that line on its own account, ignoring patents. Edison invented a powerful battery transmitter and sold it to the Western Union, with which its agents boasted that they were going to drive the Bell people out of business.

Bitter litigation now began over Bell's patents. As soon as it became evident that the telephone was likely to be a financial success, rival claimants to priority in the invention made their appearance and induced the Patent Office to put their application for patent into interference with Bell's already issued patent.

Watson Supersedes Bell

In the fall of 1878 all parties to this suit except Bell had filed their statements and it was necessary for him to do this at once. Bell was in England and letters to him gave evidence that he was disgusted with the telephone business and determined to have nothing more to do with it. Word came that he was leaving England and on his way to Quebec. Watson met him at the boat and gave him a clear picture of the growth of the business and persuaded him to file claim in time to save the patents. After that Bell never had any active interest in the development of the telephone. Watson then became the engineering head of the telephone.

Early in 1879 the telephone company sued the Western Union Telegraph, the largest corporation in the world at that time. The opponents had plenty of money to spend in their efforts to break the patents. Experts searched the literature and archives of every civilized country, trying to find evidence to prove that some one else invented an electric speaking telephone before Bell did. And they hired everyone they could find who thought he had a claim to some feature of the telephone, to help them in the fight.

The printed record of these legal battles over the speaking telephone is voluminous. Three hundred volumes of testimony recording in detail the proceedings in the 600 suits brought for and against the Bell's patents between 1878 and 1895. "Out of the dispute over Bell's claims has come the most important, the most protracted litigation that has ever arisen under the patent system in this country."

Watson resigned from the telephone company in 1881. Interest in the telephone diminished rapidly as the fascinating pioneer work began to be more and more divided among other workers. The prospect of spending the rest of his life in office work, supervising and inspecting, was not attractive. There was a long list of things he wanted to study—rocks, animals, plants, poetry, drama, philosophy, music, painting, language and foreign travel.

Could Not Quit Experimentation

In 1883 Watson bought a farm in East Braintree about 12 miles from Boston. It had a large house, barn and 60 acres of land. He bought all kinds of farm machinery and started to revolutionize farming. But he soon found that the land was unsuitable and the hard work of farming tired him. He missed the machine shop.

In 1885 he fitted up one of the farm buildings as a machine shop and hiring another machinist he started the making of an engine suitable for yachts and tug boats. It was a momentous decision. From it came one of the largest shipbuilding establishments in the world. He soon got an order for a 50-horsepower steam engine. In a few years he was making one of the best small marine engines in the country. Or-

ders came fast. He had to build another shop on the bank of the Fore River which soon grew to such a size he was again in the position of supervisor.

Watson then took a course in geology and paleontology at the Massachusetts Institute of Technology. Although other things besides general oversight of the shops required his attention, he had a glorious time studying for the next eight years. A number of his studies are included in the standard works on the geology of Boston Basin.

The business of this region was largely shoemaking, and about the middle of the 1890's the people were seriously feeling the stress of the hard times prevailing. To help give employment, work was increased by building of hulls for small vessels, as well as their machinery.

Destroyers and Auto Engines

In the midst of hard times the country was awakened to the necessity of building up a navy that had been on a low ebb for years. Congress made large appropriations for new naval construction. Among other warships bids and designs were open for several torpedo-boat destroyers, which were never before built in this country. These ships, although larger, more complex and powerful than any he had yet built, seemed to Watson an excellent opportunity to start the works going full speed and employ more men. Drawings were made and submitted to Washington and contracts were given to build two 400-ton destroyers, the *Lawrence* and *MacDonough*.

This was another turning point in the life of Watson as well as in the destinies of the Fore River Engine Company. Before deciding to go in for the construction of these ships, he had designed a steam automobile and had almost made up his mind to build them in the shops. Had he done so he would have been one of the pioneers in the automobile business. Since the destroyers seemed more in line with the work being done it was decided to build warships instead of "horseless carriages."

Although the decision was the beginning of the most difficult part of his life and led to financial disaster, it was good for eastern Massachusetts. After starting new work there was no lack for many miles around. With the decision to build naval ships in 1897, largely to give employment to more men, came the development of the little engine works into a great shipyard. It was the leading factor in the prosperity of that section and put the state back near the forefront as a shipbuilding locality. Had he decided to build automobiles it might have made Massachusetts an automobile center.

During 1899 both destroyers grew rapidly, but worries grew faster. For increasing work they had, unfortunately chosen the most difficult construction in the whole of marine architecture. Every detail of a destroyer must be exquisitely exact in design and construction and every ounce of material must be superquality. During those first years Watson heartily regretted the starting of warships instead of automobiles. And he thought many times it would have been cheaper had he pensioned all of the unemployed in the vicinity instead of taking on such a load of trouble.

He soon found that a large shipyard has a ravenous maw for work. Contracts for new ships must be fed into it in a steady stream or disorganization would soon result. He bid for armored cruisers although he knew it would require further capital and a still larger yard. And when he was awarded the contract for the *Des Moines* he started the building of a new yard a few

miles down the river, a plant that had a waterfront of 100 acres, the largest shipyard in America. By 1902 they had 11 ships under construction representing contracts of more than \$20,000,000, and covering the entire range of modern naval architecture.

The need for additional capital became so great that disaster threatened the enterprise. Boston bankers became interested and offered to come to the rescue with an offer to underwrite \$1,000,000 for his 6 per cent bonds. They also required for their services a large bonus in preferred stock and that they should be allowed to name the majority of the directors. And as a final twist of the screws Watson was to agree to resign as president of the company any time they wanted to put their man in his place. The terms were harsh but he had to accept or see the whole business scrapped.

The first step of the new directors was to suspend dividends on the company's stock. The next step toward reorganization was the appointment of a new president. And as a final blow to Watson's work there was a foreclosure of the bondholders mortgage, rendering his stock valueless and wiping out his entire investment. The little shop he had started in an old barn, with one helper, 22 years before, had grown to a great plant employing 4,000 men. A plant that later (1919) employed 20,000 men.

Became An Actor

Watson was now penniless, with the exception of a small trust fund he had arranged for the protection of his family before the shipyard venture. This small income was slightly added to by public readings of poetry and plays, work he loved. In 1910 he read an account of Frank Benson's Company of Shakespearean players, in England. Each year they took on a few young men and women as students of acting. He wrote to Benson asking if a man of his age could be accepted. He was told he could do so at his own risk and Watson accepted, spending two of the happiest years of his life traveling with this company through England.

At the opening of the Transcontinental Telephone Line, on January 25, 1915, Watson was assigned the San Francisco end and Dr. Bell the New York end, in the opening of the telephone communication across the country. The line worked perfectly and carried on a conversation over a wire 4,000 miles long as easily as they had talked 39 years before over a wire a mile long.

The story of Watson's life is best summed in the records of the American Institute of Electrical Engineers: "Thomas Augustus Watson—Man of large and varied interests, founder and sometime president of an important ship building industry, inventor and investigator in several fields of science. He assisted Dr. Bell in experiments which resulted in one of the greatest of modern inventions. Dr. Bell's was the first human voice to speak by telephone, Mr. Watson's was the first human ear to hear. Informed in the arts as well as in the science, lover and student of Shakespeare, a man of culture."

Forsooth, brothers, fellowship is heaven, and the lack of fellowship is hell; fellowship is life and the lack of fellowship is death; and the deeds that ye do upon the earth, it is for fellowship's sake that ye do them. Therefore, I bid you not dwell in hell, but in heaven—upon earth, which is a part of heaven and forsooth no foul part.—*William Morris*.

That Tax Snarl

By T. M. GILLIN, L. U. No. 98

The voting wage earner helps to determine the cost of living. This being a government by the people, who elect representatives who determine the expenditures of our government, these expenditures are collected in the form of taxes; some taxes are direct, some are indirect; all taxes eventually find their way into the cost of living.

I have heard, very often, people express themselves as follows:

"Why should I vote? One vote, more or less, won't matter, and if I vote I must pay taxes, and perhaps I shall be called upon to serve as a juror, and lose time and money."

The representatives elected spend the voters' money and fix a system of taxes, decide who shall pay and how the taxes shall be collected.

The honor, duty and privilege of voting doesn't interest most people, but they are interested in paying.

Everybody pays taxes, all taxes are really paid by the salaried men and the wage earners indirectly.

Every time you buy something you help someone to pay their taxes, when you pay rent you help someone pay their taxes, when you buy food or clothing you do your bit in helping pay other people's taxes, when you travel, either by train, motor coach, boat or airplane, you are helping to pay taxes, included in your gas, telephone or electric bill is enough to help pay the taxes.

Sometimes you help several people to pay their taxes when you buy some necessity of life.

Let us take the buying of a suit of clothes as an example:

The sheep rancher who sells the wool includes in his profits enough to pay his taxes, the wholesale wool merchants add their bit, then the yarn manufacturer, the jobber and retailer. This is truly hurrying the process, for the wool passes through several more hands than we have named. We must not forget the cotton or silk with which the garment is lined and the button manufacture, all major industries taxes of which you help to pay.

If any of the above-named businesses have borrowed money, the banker from whom they have borrowed the money includes in his profits enough to help pay his taxes; this, of course, is passed on to buyer of the suit of clothes.

Thus you can easily understand how this indirect system of taxation is the greater tax.

There is no way to evade the tax collector.

The well known Chicago bootlegger was not haled into court for breaking the 18th amendment, but for not paying his taxes.

The United States government, during the year of 1930, floated new bond issues, amounting to \$1,867,000,000. The public must eventually pay all interest charges and principal, collected in the form of taxes, collected indirectly from the average voter.

When the form of tax is a sales tax or amusement tax, or as we have in most states, a gas tax, Mr. Wage Earner pays double.

A more just form of taxation is the excess profits tax, the income tax, on incomes of \$5,000 or more, and the inheritance tax.

In 1913 the New York World published a list of a few of the largest incomes in excess of \$1,000,000 a year.

Just 29 fortunes had a yearly income of \$176,150,000, the total capital was \$2,756,000,000.

These fortunes are passed down to people who had little or nothing to do with the amassing of them while the wage earners who actually made this vast wealth are today in want.

With the proper form of taxation, a great burden could be lifted from the people and the burden placed upon those who could easily carry it. The burden should be placed where it belongs, not on the shoulders of labor, but on the shoulders of capital.

CONDITIONS AT BOULDER DAM NOT CLEARED UP

(Continued from page 296)

Only government and Big Six employees with passes are allowed on site. The entrance four miles from Boulder City is well guarded. To obtain work one must fill out application with the United States and state employment bureaus at Las Vegas. Mr. Blood, deputy state labor commissioner, in charge, permitted me to see the applications for electricians—there were 47. Mr. McAdams, employment manager for the Big Six Companies, scrutinizes all applications before he allows Mr. Blood to post applicant's name outside of his offices, when Mr. McAdams wants men. I had several conferences with McAdams and Blood, relative to the situation.

During the month of February there were over 5,000 applications on file—165 men were called. Ninety of these were veterans and 15 of the calls were for construction mechanics.

MODERNIZATION GROWS IN FORCE AS JOB REMEDY

(Continued from page 302)

"We might say here that we have been swamped at our headquarters office with men wanting to know where all of this work is, some of them aren't very nice about it, but we cannot give out that information; our idea being to create the work and, in that the work will require both men and material, it will automatically find the man.

"The bureau office will remain open until about September 1, in order that we may follow up the pledges and, just as far as possible, see that the work is carried out.

"The bureau office is open to all persons seeking building advice, and is in a position to tell them what materials are best to use and how to use them, also who handles special materials and the cost of same. Estimates may be obtained. Should they want to know about reliable architects, contractors or mechanics they may make their own selection from our registered list which gives classification and references. The bureau will furnish information as to ability and credit rating only upon request.

"The bureau office location is on the ground floor, suite having large display window. The windows are filled with samples of most of the various building materials, with cards attached showing cost in 1926-1929 compared with 1932 prices. The display has proven of interest to the public, and at all times during the day and evening people gather to look it over and copy price information. Many come into the office to ask where certain materials may be obtained.

"To date pledges total \$10,479,554.30 and returned stubs show work completed \$141,911.12. On most of the larger work, we do not expect to get returned stubs.

"Work such as Portland's new government postoffice building, postoffice at St. Johns District, city incinerator, Irvington School Commonwealth Trust and Title Company building, art museum and Habbemann Hospital; a total of \$2,826,000 has not been included, due to the fact that they were either contemplated or under way.

"We enclose sample pledge and solicitor's identification cards, suggestions for official workers, copies of articles of incorporation and policies of the bureau, speeches, stickers and envelope stuffers."

FOREMAN, KEY TO SHOP EDUCATION

(Continued from page 304)

maximum efficiency, he must be shown the relation of his minute performance to the product as a whole, for only then will he recognize the importance of his doing his own part perfectly. Re-training of old employees to the use of new devices is another and an increasingly significant problem which industry now frequently meets.

No Real Industrial Education Yet

At this point the author raises the question as to where the responsibility for all this training lies. Is it proper, he inquires, for society to provide it out of public taxes for industry's benefit—especially when it cannot do so to industry's satisfaction? But industry itself has failed as yet to meet its needs. The gap between theory and practice in training on the job under foremen is still too great; for under this system the worker continues to pick up most of his information from his own observation and experimentation as best he can.

Training for the great bulk of American industrial and commercial workers remains virtually negligible. Much further and more daring experimentation on the part of both industry and society at large must be made and the desired goals more clearly mapped before great progress can be expected from education in industry.

IS PROSPERITY SHOD WITH SILVER SHOES?

(Continued from page 298)

"Decreasing the volume of money decreases the prices of commodities and the wages of workers.

"Increased prices and wages result in increased production and employment.

"Decreased prices and wages result in decreased production and unemployment.

"The employed consume the produce of the farm and the products of the factory and create prosperity.

"Unemployment causes business depression, poverty and suffering.

"Decreased prices force the debtor to

pay his debt in dollars of increased purchasing power over the dollars borrowed—to the gain of the creditor and the loss of the debtor. * * *

"A great benefit to the people in the use of silver as money will result from the large number of workers who will be engaged in the mining, milling, transporting, smelting and refining of silver in the course of its progress from the mine to the mint. Such employees do not include the additional large number of those who will be gainfully occupied in furnishing them with supplies and equipment.

"Furthermore, silver money coined from silver bullion would immediately pass into circulation and would not have to be accounted for as loans. It would belong to the employees and others who had received it in exchange for their services and commodities and would again and again be passed on to others in exchange for their services and commodities. * * *

"Because the total amount of money is not sufficient to meet the every day demands of business and commerce. In other words, vastly more credit is loaned on which interest is paid than money on which interest is paid.

"In addition to loaning their own money on interest the bankers of this country are doing business and profiting by loaning the credit of their depositors upon which loans they are also receiving interest. The loans on credit are many times more than the loans on the money of the banks.

"It is safe to say under state and national laws the bankers of this nation are receiving interest on at least 10 dollars of credit furnished by their depositors to one dollar of their own money.

"Extending these credit loaning operations to the banks throughout the nation, the amount of interest collected by the banks on loaned credits is enormous.

"It is estimated the interest bearing debts in the United States aggregate about \$150,000,000,000, upon which the annual interest provided for amounts to as much as all the money in the country.

"Surely something more than money was loaned and that something included credit furnished by depositors.

"There cannot be a surplus of money until the amount of money in circulation exceeds the money requirements of the business of the people. * * *

"Our country being the second largest producer of silver in the world, self interest demands that the American people return to bimetalism—to the use of silver as money such as existed in America for 87 years.

"If Congress remonetized silver, within one year thereafter that metal would be restored as money by the other nations of the earth, and foreign silver would not be forced upon the mints of the United States since the business of 90 per cent of the people of the world is not transacted on a gold basis and they need their silver for money. However, the importation of silver could be forestalled by the elimination for minting

purposes of the silver of other countries. * * *

"Given by law the quality of legal tender, the annual silver production in the United States at the price of \$1.29 per ounce would yearly place in circulation to dispel the gloom of business depression and restore the sunshine of prosperity over \$78,000,000 of the newly created money. * * *

"However, when you remonetize 412.5 grains of silver 0.900 fine into a silver dollar you have added another dollar to the money supply, which dollar will purchase a bushel of wheat or pay for a dollar of service and still be in existence, and again and again will purchase a bushel of wheat or pay for a dollar of service. * * *."

SIX-HOUR DAY FIGHT OPENS ON RAILROADS

(Continued from page 299)

plays its part in providing a livelihood for all other workers, by furnishing a market for the goods and services they produce. If 500,000 in another industry are out of employment, there is a lower demand for the services of the railroad industry. If 500,000 railway employees are out of employment, there is a lower demand for the services and products of other industries.

Work Means Buying Power

"When the Interstate Commerce Commission reviews the figures before it and observes that in a time of seeming prosperity 300,000 railway employees lost their employment; and when the commission turns to other industries and finds their production increasing and the number of their employees likewise diminishing, the commission will have before it incontestable proof of the cause of the present plight of the railroads. The commission will know that if 300,000 men had been kept employed by the railroads, there would have remained that additional purchasing power to support the employees of other industries; and that if the millions now unemployed in other industries had been kept employed, the railroads would not be in the present doldrums.

"We believe that the commission, when it reviews the course of our industrial development and decline, will see clearly that if the managers of industry had recognized, and managed these industries so as to accomplish, their primary purpose of furnishing a livelihood to those who had engaged in them, the railroad industry, and all other industries today, would not be wallowing in the depths of the present depression. It is the contention of the railway employees that it is the duty of an industry to care for those who have invested their lives in the industry, with at least the solicitude manifested for those who have invested their surplus money in the industry. It is further the contention of these organizations that if the managers of each industry did undertake, as their primary responsibility, to maintain the employment of those who have invested their lives in the industry, they would give adequate and permanent protection, in the only way possible, to those who invest their money in industry, because the values of those investments of money depend wholly

upon the maintenance of employment and the prevention of disastrous periods of spreading unemployment.

Get Back to First Things

"It is the position of these organizations that the railroad industry under government regulation must adapt its managerial policies to the social and economic needs of all the people; and must follow policies reasonably calculated to promote the general welfare. The transportation industry is a vital part of every other industry. If the principle of the six hour day ought to be applied throughout industry, as a means of maintaining employment and preventing unemployment (which would otherwise result from changing industrial processes and from excessive valuations placed upon ownership rights) then the effect of the application of such a principle in the railroad industry must be found to be beneficial. If the effect of the application of this principle upon the primary service of every industry, in providing a livelihood for those who are engaged in it, is an improved 'service,' then the effect upon the railroad industry must be likewise that it renders an improved 'service.' And we submit that it is a necessary part of the present investigation, and of the report of its findings by the commission, to determine so far as it can be determined from the facts available and the drawing of reasonable conclusions from those facts, the ultimate and far-reaching effects of the application of this principle which is designed to relieve and to prevent unemployment in an industry, which (together with every industry in the country) is suffering today primarily because it has failed in its first obligation to furnish a livelihood to all those who have invested their lives in that industry."

PUBLIC WORKS, WAR, OR REAL COLLAPSE?

(Continued from page 303)

serious obstacle to recovery. If the government through a sensible and carefully planned expansion of public works, were to give business the assurance of a substantial increase in orders, the chance to the success of the reserve board's policy would be greatly improved."

I love you for what you are, but I love you yet more for what you are going to be.

I love you not so much for your realities as for your ideals. I pray for your desires that they may be great, rather than for your satisfactions, which may be so hazardingly little.

A satisfied flower is one whose petals are about to fall. The most beautiful rose is one hardly more than a bud wherein the pangs and ecstasies of desire are working for larger and finer growth.

Not always shall you be what you are now. You are going forward toward something great. I am on the way with you and therefore I love you.—Charles Sandburg.

It is nothing to give pension and cottage to the widow who has lost her son; it is nothing to give food and medicine to the workman who has broken his arm, or the decrepit woman wasting in sickness. But it is something to use your time and strength to war with a waywardness and thoughtlessness of mankind; to keep the erring workman in your service till you have made him an unerring one, and to direct your fellow-merchant to the opportunity which his judgment would have lost.—John Ruskin.

WAGNER COMMITTEE REPORTS ON JOB INSURANCE

(Continued from page 301)

now be regarded as a permanent feature of our code of social legislation."

As to Germany, the employing class which "at first vehemently opposed the introduction of compulsory unemployment insurance . . . before long began to feel that unemployment insurance also had certain advantages. It tended to stem the tide of radicalism and also to stabilize the labor market by keeping a steady and ready supply of qualified and specially skilled and trained workers at the employers' disposal. Without benefits, or sufficient support, these trained workers would wander off to other districts and accept any jobs they could get, thereby sacrificing much of their professional efficiency. Experience during the last few years has repeatedly shown that unsupported, unemployed skilled workers who had taken up some other occupation in order to make a living had lost a high percentage of their efficiency when they returned to the trade which they had learned."

Similarly, in Bulgaria, with seven years' experience with compulsory insurance, "employers as a whole . . . are still somewhat dissatisfied. . . . The public as a whole looks favorably on the system as a work of public welfare quite independently of any inherent technical defects."

"The Workers Party, with communistic tendencies, being the substitute for the former Communist Party which was dissolved by law, is the only avowed opponent to the system."

Proposals For Unemployment Insurance in the United States

Discussion with reference to unemployment insurance in the United States is at the present time preoccupied with two major questions.

The first question is: Shall unemployment insurance in the United States be made compulsory by the action of the states or shall it be left to the voluntary action of employers and employees?

The second question is: Shall the insurance be built on the basis of a state-wide pooling of risks and premiums, or shall each industry within the state pool the risks of that industry, or shall each employer establish his own reserve for his own employees?

In answer to this criticism of a state-wide insurance pool it has been suggested that premiums be adjusted so that the employer who gives steady work would have to pay smaller weekly premiums than the irregular employer.

The proponents of the American plan undertake to eliminate these alleged inequalities of general unemployment insurance by providing for (1) insurance by industry, or (2) company funds.

Insurance by Industry

The American Labor Legislation Association has developed a plan for the compulsory pooling of the unemployment risks of each industry by the creation of separate insurance funds for each major type of economic activity. Under this plan all of the employers in the clothing industry, for example, would contribute to the same fund, thereby relieving the employers and employees of other more regularly operated industries from the burden of supporting clothing workers during periods of unem-

ployment. This principle of making each industry responsible for its own unemployed will lead, it is asserted, to a realization of the necessity of furnishing more regular work and, also, provide a stimulus in that direction.

Company Funds

Under the company fund plan each employer bears his own risks. No employer is compelled to carry the burdens of his competitors or of employers in other industries. The plan in itself is exceedingly simple. It calls for the establishment of an unemployment insurance fund for each employer and for the creation of a state agency for the necessary administration and supervision. Each fund is to be separately managed and administered. Contributions are to be made only by the employer. Provision is made, however, for arrangements whereby employees, individually or collectively, may agree to make contributions for the purpose of securing unemployment benefits additional to those provided out of the employers' contributions.

The amount of contribution to the fund varies in the several bills that have been submitted. The act recently passed by the Wisconsin Legislature provides for a premium equal to 2 per cent of the wages paid to the employees. To stimulate the employer to regularize his employment, he is relieved from making any payments into the fund at all, once the fund has reached a predetermined size, sufficient to cover the reasonable needs for benefits in a given year. Thus the Wisconsin law provides that whenever the fund of a given establishment is equal to \$75 for each employee on the pay roll, payment of contributions to the fund ceases. When the fund falls below this amount but is more than \$55 contributions are to be but 1 per cent of the pay roll.

Who Shall Manage the Fund?

The insurance fund must be protected from the insolvency of the employer. The most feasible method of accomplishing that is to place it in the hands of a trustee, either privately selected, or governmentally appointed. It is also exceedingly important that the employee's right to benefit shall not depend upon the sole judgment of his employer. The worker should have the opportunity of presenting his claim for impartial determination and review.

Shall Unemployment Insurance Be Voluntary or Compulsory?

The question whether unemployment insurance shall be voluntary or compulsory is the principal issue developed in the course of the hearings.

That question does not present a real alternative. The experience of the United States and of European countries has already been cited. It is uniformly instructive of the lesson that no extensive insurance is ever established by the voluntary acquiescence of employers. To advocate insurance with sincerity is to advocate compulsory insurance.

Compulsory insurance does not mean that the state must operate the insurance system or that the state must contribute to the insurance fund or reserve. All that a system of compulsory insurance necessarily involves is that the employer is under statutory obligation to provide insurance or reserves to protect his employees against a stated period of unemployment.

Why Should the Federal Government Encourage Unemployment Insurance?

The reasons for federal encouragement are inherent in the economic organization of the United States. It is fairly obvious that by this time state lines do not play a very important part in economic disturbances. State boundaries are not economic barriers. They do not check the spread of depression. If a condition of unemployment or destitution is permitted to develop in one section of the country it will sooner or later extend to other sections of the country. A similar economic interdependence is apparent between agriculture and industry. The stabilization of industry, the maintenance of purchasing power, the mitigation of want, are national and not merely local achievements. There is, furthermore, the national interest in the development of a sound and sturdy citizenship, in the attainment of which, the maintenance of the standard of living plays a major part.

How Can the Federal Government Encourage the Establishment of Unemployment Insurance?

The principal responsibility for unemployment insurance rests with the states. The federal government can make two important contributions toward the establishment of insurance systems:

(1) Congress should enact legislation now pending (S. 2687) for the creation of a federally integrated system of state-operated employment offices. An efficient nation-wide employment service is prerequisite to the success of any system of unemployment insurance.

(2) Congress should pass legislation permitting employers who provide unemployment insurance to deduct a portion of their payments into unemployment reserves or toward unemployment insurance from income tax. That will reduce the cost of insurance to the employer and therefore reduce the apprehension of the employer that he is burdening himself with a competitive handicap by providing unemployment insurance.

Summary of Conclusions

1. The evil consequences of unemployment can, and should be, mitigated by the establishment of unemployment insurance or wage reserves.

2. Unemployment insurance or wage reserves, to be successful, should be inaugurated under compulsory state legislation and be supervised by state authority.

3. The federal government should encourage state action by (a) co-operating with the states in the establishment of a nation-wide employment service, and (b) by allowing employers to deduct from income tax a portion of their payments into unemployment reserves or toward unemployment insurance.

4. Every system of unemployment insurance or reserves should be organized to provide incentives to the stabilization of employment.

5. The insurance or wage reserve system should be built on a plan financially and actuarially sound so that the premiums paid into the fund shall be sufficient to meet the obligations of the fund.

6. Compulsory unemployment insurance eliminates the competitive advantage of the employer who refuses to recognize his business responsibility for unemployment.

7. Compulsory unemployment insurance preserves the mobility of the worker and his freedom of action in attempting to improve his economic position.

8. Unemployment insurance, will beneficially affect not only the workers but agriculture, industry, and trade; all alike profit from sustained purchasing power.

9. Sound business and good conscience both demand that, in dealing with unemployment, we abandon the methods of poor relief, with its ballyhoo, its inadequacy, inequality, and uncertainty, which are a drain on the sympathy of the giver and a strain on the character of the taker. Let us, like civilized men and women, organize intelligently to prepare today for the exigencies of the future.

CATHOLIC COUNCIL ENVISIONS END OF ERA

(Continued from page 300)

J. E. Hagerty, Ph.D., on "Economic Reorganization":

"In accordance with this theory, then, the industries of the country would be organized into the various vocational groups, usually national in scope, controlled by councils of wage earners and employers, under the direction of public authority. This organization would allay the bitterness now prevailing between employers and employees, a more rational distribution of wealth would take place, and for the haphazard system of production with the alternate glutting of markets, and scarcity of commodities, we would have substituted a system of rational planning. * * *

"The differences between the plan submitted by Mr. Swope and the one submitted by Pope Pius XI consist in the extent to which employees should participate in the plans of the trade association or vocational group. Pope Pius would apparently give them a share in controlling industry. Mr. Swope would restrict the activity of employees to a participation with employers in life and disability, pension and unemployment insurance plans, and for this purpose he would have an advisory board in each association consisting of employers and employees for this purpose.

"Mr. Swope would not give to wage earners equal rights and privileges in planning production, in controlling industry and in determining factors which enter into the distribution of wealth. Pope Pius XI would give labor an equal responsibility with employers in determining these things. The Pope is not fearful of Labor's influence. We have passed the stage in industrial history where we are willing to permit industrial leaders alone to determine the distribution of wealth even under the control of a government board."

Linna E. Bresette on "Legislation":

"The aim of social legislation must be the re-establishment of vocational (i. e., occupational) groups. The organization of the people in each industry along the lines of their common interest has a double reason—to suppress needless conflicts between them and to plan their industry's service for the whole group and the common good. Besides establishing such organization, government authority will direct, watch, stimulate and restrain their activities as the needs require. It will 'never destroy or absorb them' but instead will help them. * * *

"Individualism, or 'Liberalism,' is the theory that holds government should refrain in theory and practice from interfering in economic activities on the ground that free competition and an open market are automatic mainsprings of the common good. Individualism has been the ruling theory of government and it has damaged and all but ruined 'the highly developed social life which once flourished (i. e., during the middle ages) in a variety of prosperous in-

stitutions organically linked together.' And therefore, virtually all that has been left is individuals and government."

Rev. R. A. McGowan on "Working for a New Social Order":

"A new social order is an aim of the Catholic Church. The present social order is not founded in nature, justice or charity. The encyclical of Pius XI on 'Reconstructing the Social Order' presents specifications of a new order. It appeals to Catholics to work for a new order and it outlines a program of Catholic work."

World's Fastest Motion Picture Camera

A motion picture camera able to take approximately 100,000 separate pictures in a second and which has been used successfully to photograph what happens to the jets of oil injected in less than a thousandth of a second each into the cylinder of a Diesel engine was described recently to the French Academy of Sciences, in Paris, by the inventors, MM. Labarthe and Seguin. The chief novelty of the camera is the lamp used, which is a variety of the brilliant glow tubes like those used in neon signs. Even the ordinary neon sign does not give out continuous light but emits instead a series of bright, instantaneous flashes; usually about 60 or 120 of them each second. These blend in the eye into what seems to be a steady glow. The French experimenters use a similar lamp arranged to give flashes of much greater

brilliance and to repeat these flashes at any desired rate up to 100,000 a second or even more. Each flash of this neon lamp takes one picture, like a photographer shooting a whole series of cartridges of ordinary flashlight powder one after another. There remained, however, the difficulty of opening and closing the shutter of the motion picture camera at this enormous speed, and of moving the film fast enough so that a new, unexposed portion would be in place for each picture. No mechanical shutter is fast enough for this, MM. Labarthe and Seguin report, nor would ordinary motion picture film stand the strain of such rapid movement. What is done is to use a large, rotating disk of sensitive film so that a new spot on the spinning disk is underneath the lens each time that the lamp flashes.

To be strong and true; to be generous in praise and appreciation of others; to impute worthy motives even to enemies; to give without expectation of return; to practise humility, tolerance and self-restraint; to make the best use of time and opportunity; to keep the mind pure and the judgment charitable; to extend intelligent sympathy to those in distress; to cultivate quietness and non-resistance; to seek truth and righteousness; to work, love, pray and serve daily, to aspire greatly, labor cheerfully, and take God at His word—this is to travel heavenward.—Grenville Kleiser.

Be sure that religion cannot be right that a man is the worse for having.—William Penn.

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679	650187	650194	835	80212	80225	1057	482510	482517	20	470415,
681	458222	458232	838	69771	69819	1072	858681	858694	28	104394,
683	80180	80214	838	208351	208352	1091	40773	40792	30	602626,
684	539881	539908	840	664941	664951	1095	69206	69239	35	33442,
685	41697	41700	849	623569	623573	1099	787717	787740	40	591033-034, 113,
685	603751	603771	850	746268	746271	1101	341770	341780	41	389198,
686	177141	177172	854	205298	205325	1105	658269	658280	43	431716, 766,
686	71710	71711	857	204753	204758	1108	81633	81651	48	4940, 158726,
688	18677	18683	857	4501	4511	1118	7792	7800	48	558, 606, 735,
691	6826	6838	858	140096	140126	1118	77101	77116	58	356208, 34920,
694	316387	316438	862	80761	80783	1131	38533	38549	64	81051, 81067, 81090,
695	58914	58930	863	46393	46408	1135	614234	614242	247219,	
697	302894	302902	864	242884	242925	1144	81305	81310	65	573847, 918, 980,
697	135558	135582	865	457592	457700	1151	459998	460009	83	586167, 218,
700	29794	29798	865	192305	192310	1154	629762	629792	99	471309,
702	513355	513522	865	10224	10224	1154	4501	4507	108	117405,
704	212667	212687	869	441064	441075	1154	369518	369587	124	517105,
711	514558	514627	870	203064	203099	43	431683-685,		130	481232-240,
712	368360	368388	873	364421	364430	116	156941-950,		134	522994,
713	508918	509250	885	57409	57437	194	147755,		139	249400,
713	115598	115630	886	192761	192761	214	45080,		164	372072, 089-090,
717	251090	251155	886	280808	280827	264	39217,		164	224670, 225010,
717	9741	9746	900	597778	597781	306	76585-76586,		175	73047,
719	82811	82835	902	55131	55161	321	58310,		177	257428, 492-493,
728	66086	66095	907	61569	61574	377	29433,		214	23399,
729	14860	14866	912	459161	459275	577	33824-33825,		215	70060, 70069,
731	632422	632441	918	22060	22073	584	495220,		246	194762, 775,
732	439705	439745	937	15669	15683	601	619846,		271	74207, 74221,
734	540791	540887	937	84018	84018	794	148950,		292	425749-760, 518274-
735	663251	663263	940	217965	217965	956	632996-633000,		290,	
743	250280	250318	940	669744	669755	1072	858677-680,	684,		
760	72376	72386	953	36502	36519	690,				
762	75386	75408	956	83701	83706					
763	26388	26400	958	657367	657372					
763	635401	635403	963	38738	38751					
772	702350	702354	970	694564	694572					

CONSTRUCTIVE HINTS

(Continued from page 310)

vice. Recent developments have improved it to the point where the friction load is extremely small and very uniform.

4. The electromagnet operation of the demand mechanism through the contact device provides ample power (much more than the standard watt-hour meter could deliver through direct mechanical drive without seriously impairing its accuracy). This insures reliable operation even under adverse conditions.

5. The combined demand of two or more circuits can be determined quite readily.

Time Interval Rating

The standard time interval ratings for all "integrated" types of demand meters is 15, 30, and 60 minutes. There are certain definite limitations which make it undesirable to build these meters for shorter time interval ratings.

Watt-hour Single-Phase Meters

The outstanding requirements of any watt-hour meter are high initial accuracy, permanency of calibration, strong mechanical structure, ease and precision of adjustments, and suitable housing for the intended service.

These and many other important features are to be found in alternating current watt-hour meters. These meters are also characterized by structural similarities such as the electrical or measuring element, magnets, bearings, registers, etc. Throughout the entire line a single standard of excellence is maintained, which gives high initial and sustained accuracy and a uniformity of electrical and mechanical construction. The meters are only modified slightly to meet the various classes of service made necessary by wide range of amperage, volt-

age, and frequency ratings which must be measured. The need of central stations for meters of low initial cost and small expense of maintenance and testing have, likewise, been paramount considerations. All of these desirable characteristics, as well as simplicity of construction and pleasing appearance, have been built into these meters.

EVERYDAY SCIENCE

(Continued from page 312)

light, the upward inclination of which exceeds 1½ degrees.

To obtain maximum operating efficiency, accurate focusing of the lamp is necessary.

Daylight Lampsetters—The daylight lampsetter is a cast aluminum T-shaped template with two peep sights to align the horizontal and vertical position of the filament and also to correct the position of the filament with respect to the focal point of the reflector.

One peep sight enables adjustment to be made directly in the horizontal and vertical position while the second peep sight is used in connection with a miniature lamp mounted on one of the arms. A small reflector mounted on the other arm provides adjustment for backward and forward focusing.

Rotating Beacons

Rotating beacons are used to guide pilots on airways and to airports. They are located on towers at intervals of approximately ten miles in flat country and closer in mountainous regions.

Construction

All exposed parts are made of aluminum alloy or bronze. The optical system consists of a commercial precision parabolic glass reflector and a prismatic lens in the door which diverts 15 per cent of the beam upward through the angle of 25 degrees.

The horizontal spread of the beam is approximately six degrees. Zenith panels are provided when desired. The unit is rotated at six revolutions per minute by means of a motor and gears placed in the base. When used as an advertising beacon the rotation is two revolutions per minute. Beacons for use along airways or at airports may be equipped with a mechanism for flashing On-Course lights or code beacons. This mechanism consists of a Micarta cam mounted on the rotating shaft of the beacon so as to actuate two mercury tube contactors within the base housing. A lamp changer is provided to bring a spare lamp into service upon failure of the lamp which is in focal position. At the same instant a tell-tale circuit is closed lighting a lamp to indicate that the spare lamp is in service and that the burned out lamp should be renewed.

There are two ways of being happy: We may either diminish our wants or augment our means—either will do—the result is the same; and it is for each man to decide for himself, and do that which happens to be the easiest.

If you are idle or sick or poor, however hard it may be to diminish your wants, it will be harder to augment your means.

If you are active and prosperous or young or in good health, it may be easier for you to augment your means than to diminish your wants. But if you are wise, you will do both at the same time, young or old, rich or poor, sick or well; and if you are very wise you will do both in such a way as to augment the general happiness of society.—Franklin.

To look fearlessly upon life; to accept the laws of nature, not with meek resignation, but as her sons, who dare to search and question; to have peace and confidence within our souls—these are the beliefs that make for happiness.—Maeterlinck.

PREVIOUSLY LISTED MISSING—RECEIVED

11—449891-913.
38—382387-390.
50—617516-519.
100—108305-312.
129—198626-630.
164—224028-030.
186—34601.
291—335486.
292—425746-760.
313—201925-930.
324—43790.
415—49515.
535—28540.
595—479746-758.
970—694539, 541-542,
(Triple)

BLANK

28—475670.
58—356298.
82—460040.
177—6431-6440.
211—41859-41860.
325—245769, 770.

A MAGAZINE IS KNOWN BY THE COMPANY IT KEEPS



Besides contributions from all important labor leaders and writers of the United States and Canada, the Electrical Workers Journal has published contributions and art work from the following notable men and women:



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ELECTRICAL WORKERS JOURNAL



“I HAVE no reason to enunciate anything radical, but I try to point out to my listeners that a disease is ravishing this country—the disease being the concentration of wealth in the hands of the few. And, mark you, if we don’t change this condition we’ll have a revolution. But we should change conditions in an orderly and legal way.”—REV. CHARLES E. COUGHLIN, pastor of the Shrine of the Little Flower, Royal Oak, Mich.

“THAT is what we call a Christian civilization, a civilization which imagines that prosperity can be increased as human misery increases; in a civilization in which thousands of men, women and children are pushed closer to the dizzy edge of starvation, investors send up three cheers and press forward to profit on human misery.”—PROFESSOR LUBBOCK, of Yale Divinity School.